AUGUST 1947

Printing Equipment Engineer

Let's take a *close look* at this word-

a-vail'-able

Funk & Wagnalls* defines *available* as: *"(1) Capable of being used advantageously; usable; profitable. (2) Of adequate power for a result; effectual."*

Remember this definition the next time you are told that certain graphic arts equipment is *"available"*!

Too often the word is used loosely to denote equipment on which fairly quick delivery is exploited to the limit. After that, it becomes your problem to decide whether or not it is *"capable of being used advantageously"* or *"of adequate power for a result"*.

*Funk & Wagnalls College Standard Dictionary

In the past, temptation to take a chance—to sign up for untried and little known machinery, merely because immediate delivery was promised—we know, has been strong. Today, however, the comparatively short time remaining until the graphic arts industry can get delivery of equipment which it knows from experience to be dependable, does not justify that gamble.

May we suggest that you discuss your needs with a Harris-Seybold representative now? In the years to come, you'll be glad you waited a bit longer for Harris Presses, Seybold Cutters and other Harris-Seybold graphic arts equipment.

HARRIS-SEYBOLD

General Offices, Cleveland 5, Ohio

HARRIS PRESSES • SEYBOLD CUTTERS

OTHER GRAPHIC ARTS EQUIPMENT

STA-HI

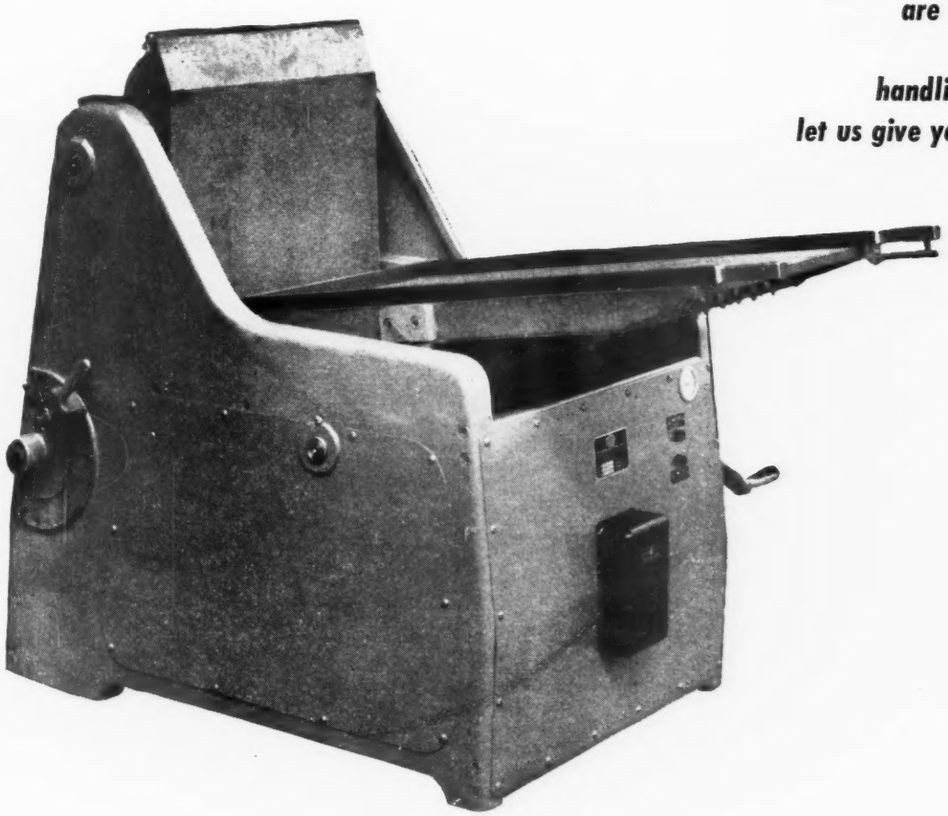
YOURS FOR THE ORDERING—NOW!

We still can't reach up to a shelf and pull down a new Sta-Hi Vacuum Flat Casting Box for you, but we have speeded up production so that we can give mighty fast delivery on this fine equipment.

Within a matter of days, or a few weeks at most, after your order is placed, we can have one of these boxes rolling on its way to you.

This new eight column casting box comes equipped with individual column control of vacuum and with two sets of gauges to suit your shell and type-high requirements.

Satisfied customers the country over are "sold" on this equipment as the ideal means of handling flat casts . . . Why not let us give you complete information?



STA-HI CORPORATION • 1020 CROCKER STREET • LOS ANGELES 21, CALIF.

NCE IN CHICAG

. . . and now in production!

WOOD COLOR PLATE PRE-REGISTERING MACHINE

Previewed at the A.N.P.A. Mechanical Conference, and in line with the plea for economical production — WOOD's latest development demonstrated how a full set of color plates can be registered BEFORE they go on the press. This machine trims a set of plates to register — rapidly and accurately, thereby cutting costly press time.

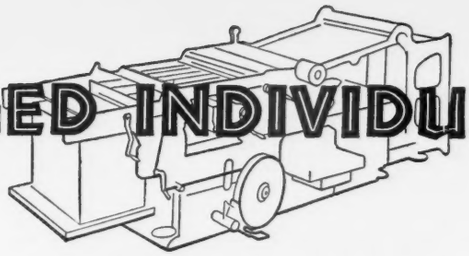
How the Pre-Registering machine prepares plates for a semi-cylindrical stereotype press — spot and process color, standard and tabloid pages, comics, supplements — in fact, all forms of newspaper color work — this and other detailed information may be obtained by writing for the brochure "WOOD PRE-Registering Machine for Color Plates".

Wood
NEWSPAPER
MACHINERY

WOOD NEWSPAPER MACHINERY CORPORATION · PLAINFIELD, N. J.

Executive Offices · 501 Fifth Avenue, New York 17, New York

RUGGED INDIVIDUALIST



DISTINCTIVE among contributions to the graphic arts is the 27 x 41 Miller Two-Color Automatic. Doubters, who originally questioned its practicability, now praise its high utility.

For plants with a half-dozen presses or more, the Miller Two-Color affords compact efficiency. It is only 17¼ feet long—about eight short steps from feeder to delivery. It is less than 6 feet high and only 4¼ feet high at the cylinders.

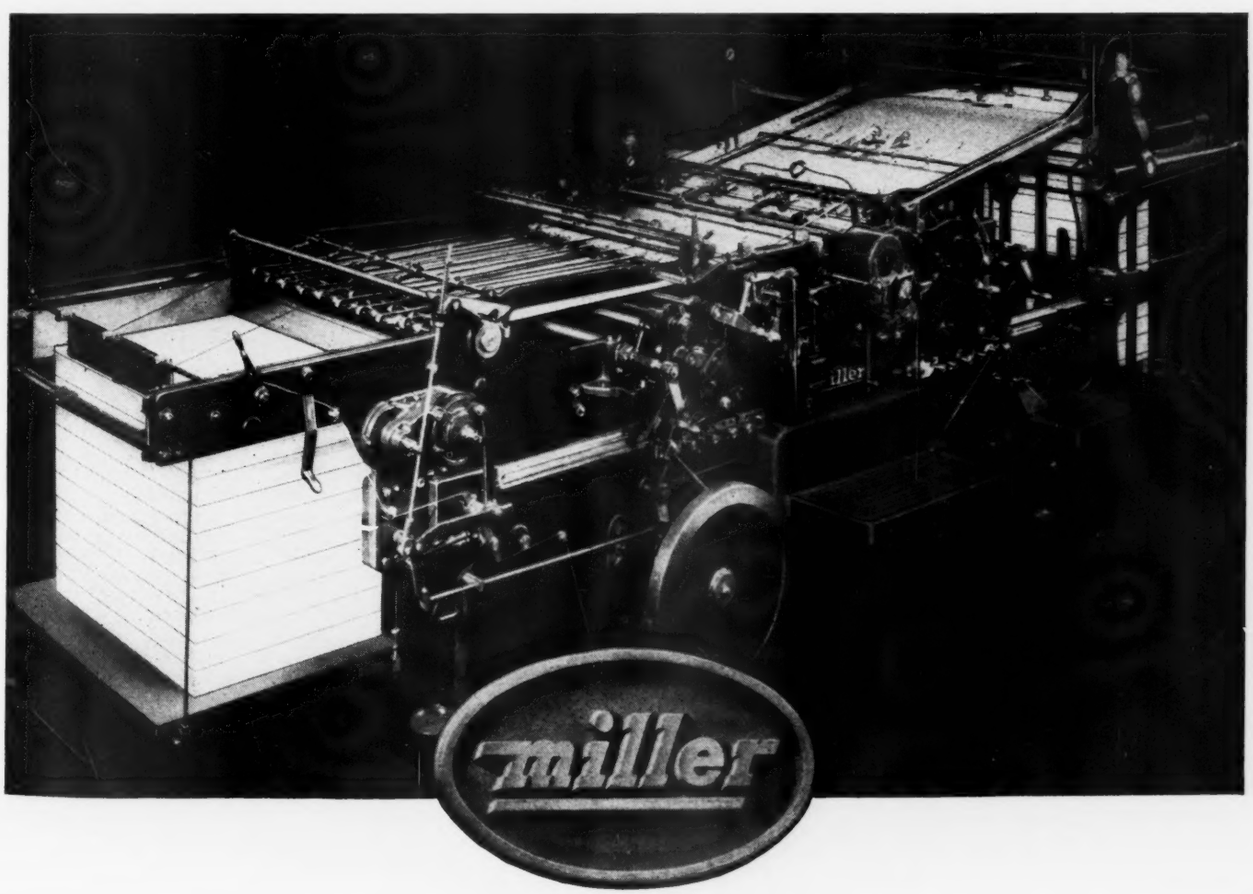
Aside from being smaller in floor area than other single color presses of similar sheet size, the Miller Two-Color also prints faster. Make-ready, wash-up and register are simplified and easy because of swing-back feeder and delivery and many other refinements in design.

The versatile Miller Two-Color produces both single and multi-color work economically. It brings dual efficiency to the growing plant in transition from single to multi-color work, as well as superlative production to the established color pressroom. It will print filmy tissue or stiff cardboard from exacting forms.

Such is the rugged individualism of the Miller Two-Color—a unique performer which distinguishes any pressroom by its product and by its profit.

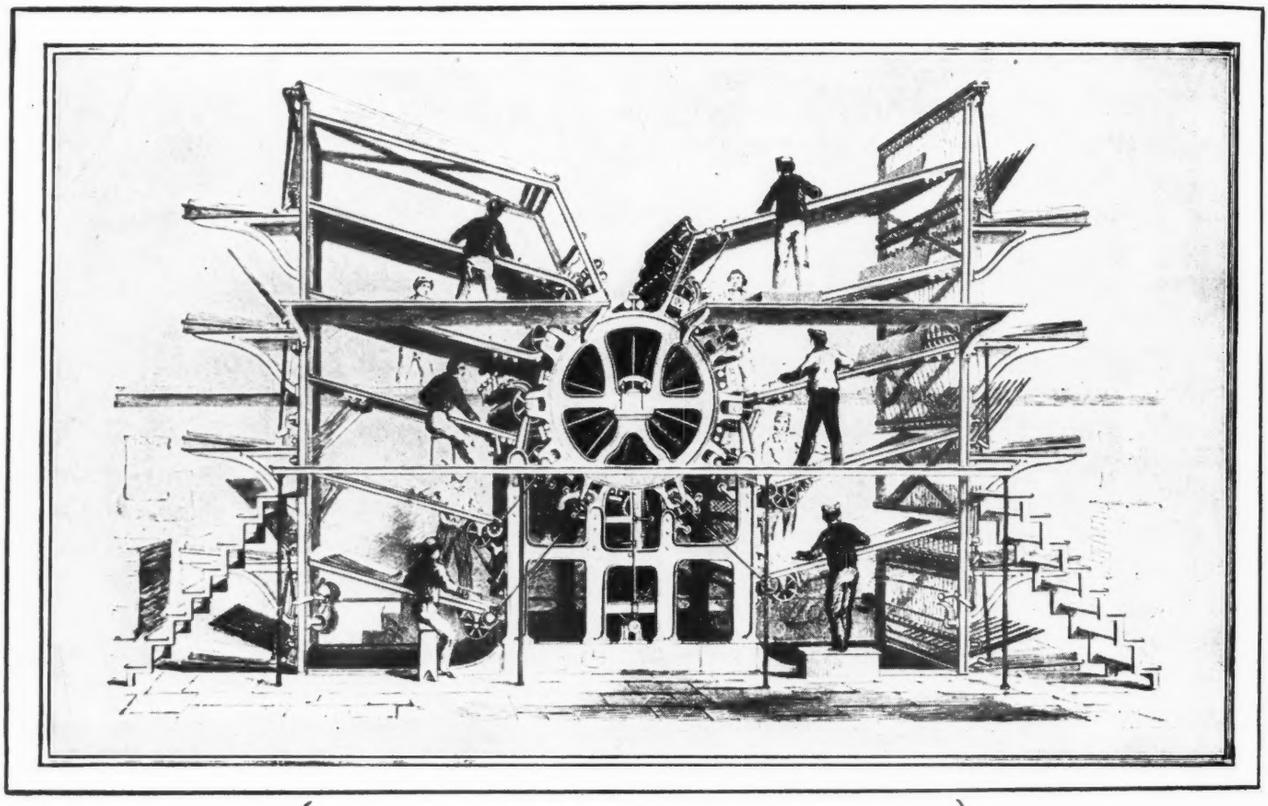
Full details gladly given, upon request.

MILLER PRINTING MACHINERY CO., PITTSBURGH 12, PA.



EVEN WHEN PRESSES LOOKED LIKE THIS...

SAM'L BINGHAM'S SON MFG. CO. rollers made them print better



TEN CYLINDER TYPE-REVOLVING MACHINE: Circa 1846

An early American effort to produce a high-speed press for newspaper work resulted in this ingenious, if fantastic-looking, "type-revolving machine." There were 175 such presses made, and they were used until as late as 1866.

The central cylinder held forms of type, secured in place by "V"-shaped column rules. Paper was hand-fed from platforms, to the impression cylinders, varying from 4 to 10 in number.

Even then, as today, SAM'L BINGHAM'S SON MFG. CO. made inking rollers that helped printers get better results. As modern press machinery demanded more and still more of rollers, SAM'L BINGHAM'S SON MFG. CO. built more and more into their rollers.

Today, through any one of 16 conveniently located factories, you know you can always depend upon SAM'L BINGHAM'S SON MFG. CO. for "the right roller right away" to do any standard or special job.

SAM'L BINGHAM'S SON MFG. CO.
MANUFACTURERS OF
PRINTERS' ROLLERS
LITHO-OFFSET ROLLERS

THERE'S A FACTORY NEAR YOU:

ATLANTA 3	DES MOINES 2	KALAMAZOO 12	OKLAHOMA CITY 6
CHICAGO 5	DETROIT 10	KANSAS CITY 6	PITTSBURGH 3
CLEVELAND 14	HOUSTON 6	MINNEAPOLIS 15	ST. LOUIS 2
DALLAS 1	INDIANAPOLIS 2	NASHVILLE 3	SPRINGFIELD, O.

1847-1947
ONE HUNDRED YEARS OF ROLLER MAKING

PRINTING EQUIPMENT *Engineer*

Volume 74 Number 5

A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

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for CLEANER NEWSPAPER REPRODUCTIONS

TINGUE DRAWSHEETS AND PRINTING BLANKET

TOP

This drawsheet is firm, durable, economical and long-lived.

IMPROVED SATISFACTION

Coated with "Calvaprene" by du Pont, on a fabric which has been impregnated with "Neoprene."

GOLD TYMPAN CLOTH

An old favorite for Flatbed presses. Skivered metallic surface accepts excess ink and flakes it off without smudging.

COMBINO

A synthetic, laminated top blanket, extremely durable and a clean printer.

WOOL FELT BLANKETS

Coated and uncoated, available in your gauge and size.

TINGUE UNDERBLANKET PRESS PACKING

CUSHION CORK BLANKETS*

Highly resilient and recommended as the underpacking for "Combino" and Tingue coated Felt or in combination with Foundation Blanket or "Korker" where a drawsheet is used.

KORKER*

This new Tingue printing press blanket is the result of years of experience and research in the construction of blankets and drawsheets.

FOUNDATION BLANKET

A firm durable oilproof underpacking laminated by du Pont with "Neoprene" for use in combination with "Cushion Cork," "Korker" and Tingue Drawsheets or Felt.

*Reg. U. S. Pat. Office

TINGUE BROWN AND COMPANY

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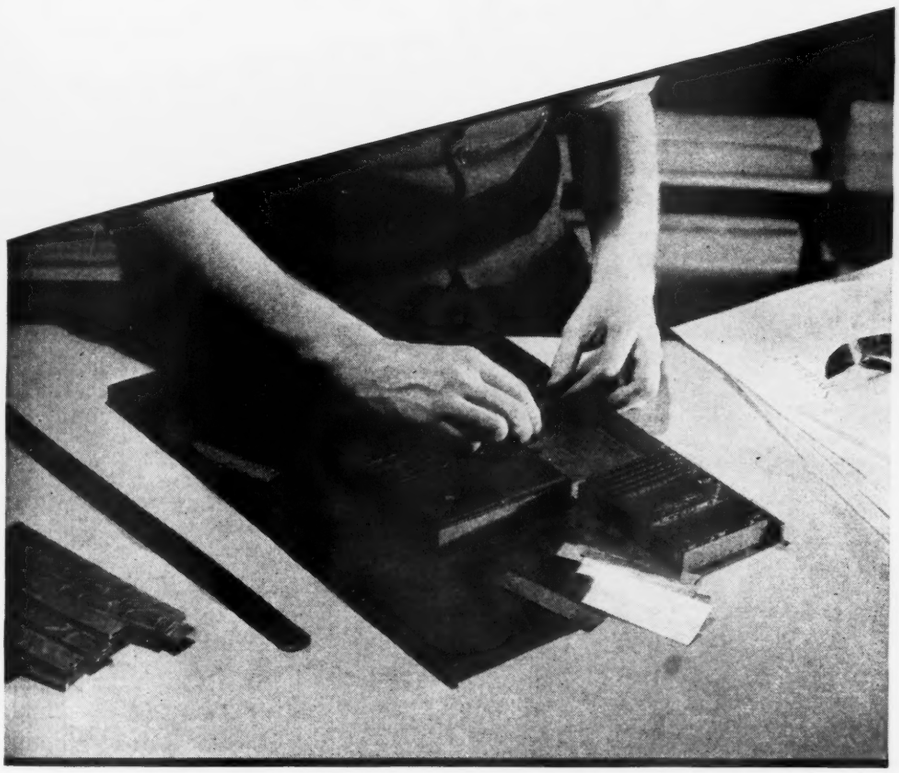
1227 WABASH AVENUE, CHICAGO 5, ILLINOIS
723 E. WASHINGTON BLVD., LOS ANGELES 21, CAL.
507 PETERS STREET, S. W., ATLANTA, GEORGIA

CANADIAN SALES AGENTS
ROSS WHITEHEAD & CO., LTD.
MONTREAL, CANADA

LUDLOW

Sluglines Are Easy to Handle



The compositor assembles Ludlow sluglines easily and quickly

An outstanding advantage of Ludlow all-slug composition is the rapid and easy handling of Ludlow sluglines in make-up and lock-up. The compositor readily assembles these solid sluglines, and the job goes up quickly, whether it be a display section or page, a ruleform, or any other general commercial work.

No need to worry about transposed or dropped letters or characters. for OK'd Ludlow lines stay that way. No need to check worn or broken letters, for there are none in always-new and clean-cut Ludlow sluglines. No need to be anxious about fragile italics or scripts, for these Ludlow faces are as sturdy as any roman letter.

Elimination of time-wasting factors permit the compositor to concentrate on the work in hand, and the Ludlow-set form whether single or in multiple, affords a solid, square unit that is soon ready for lock-up. Ludlow forms also save press makeready and running time, and short-cuts and economies starting in the composing room are reflected all along the line. Ask us for more complete details.

Ludlow Typograph Company · **2032 Clybourn Avenue, Chicago 14, Illinois**

A form is only as good as its spacing material

for a *tight* form...

and a *sweet* mix...

duratin

4% tin · 12% antimony · 84% lead

TRADE MARK REG. U. S. PAT. OFFICE

LEADS and SLUGS

THESE are the *quality leaders* in their field. Rolled in continuous strips to obtain a solid body without joints, and then shaved to precise dimensions. They can be cut and mitered in the shop, and used on a non-distribution basis. Made only of refined metal in the standard 4-12-84 machine formula, they will improve the mix in the average melting pot. The standard base height (.759") is stocked at Branch Offices. Packaged three ways:

1

2-ft. Strips in 2, 6, and 12 point put up in cartons of about 10 lbs., and of about 5 lbs. in 1 point.

2

Cut-to-measure in ½-pica lengths from 1 to 9½ picas, and in full-pica lengths from 10 to 36 picas. 12½, 13½, and 26½-pica lengths also available. All put up in 2-lb. units.

3

Labor-saving fonts of about 5 lbs. include assorted lengths ranging from 4 to 25 picas by even picas.

Get in touch with your nearest ATF Branch Office

American Type Founders An ATF Associate

BRANCHES IN PRINCIPAL CITIES

Remember the first non-stop flight across the Atlantic?

The New York Times.
"All the News That's Fit to Print."
THE WEATHER
NEW YORK, MONDAY, JUNE 16, 1919. TWENTY-EIGHT PAGES.
TWO CENTS
ALCOCK AND BROWN FLY ACROSS ATLANTIC; MAKE 1,980 MILES IN 16 HOURS, 12 MINUTES; SOMETIMES UPSIDE DOWN IN DENSE, ICY FOG
LAND AT CLIFDEN, IRELAND, IN A BOG
OUR TROOPS CROSS BORDER TO STOP JUAREZ FIGHTING
President Wilson to Sail for Home About June 24
GUNS ALREADY IN ACTION
SHOTS HIT AMERICANS
PROTESTS AVAILED

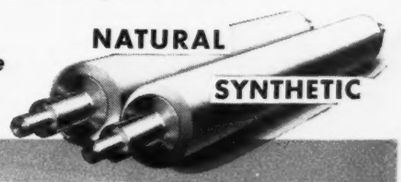
Dayco Printing Roller Experience goes back to 1919, too!

Today, as then, record-breaking flying is setting new marks, new records. Since those days over a quarter of a century ago, Dayton has been creating new and better rollers for the printing industry.

For instance, take the newspaper presses from which roll such historic headlines. The presses of 1919 turned slowly until natural rubber printing rollers were introduced. Dayton engineers continued their research for even better rollers and, in 1926, Dayton took out the first patent on renewable surface printing rollers. Later, in 1933, Dayton perfected the first successful synthetic rubber newspaper roller that made possible even greater high standards of performance.

Today this experience can be working in your favor. Put Daycos on your presses! Daycos are now available in both natural and synthetic rubber for high speeds in all positions on any type of press. For information, write Dayco Division, Dayton Rubber, Dayton, Ohio.

1919-1947 *over a quarter of a century of printing roller experience*



Dayton Rubber

THE MARK OF TECHNICAL EXCELLENCE IN NATURAL AND SYNTHETIC RUBBER

BEHIND THE HEADLINES
GAS MAKES THE NEWS

IN WASHINGTON, News Capital of the World, Four Important Daily Newspapers Cover the National and International Scene.

Readers in the District of Columbia, Maryland, Virginia, and the surrounding areas depend on those four dailies for their morning and evening headlines, highlights, news, and views.

And, in Washington—as in thousands of American cities—GAS makes the headlines, highlights, news, and views. In the mechanical departments of these four newspapers modern Gas stereotype equipment and Gas-fired type-metal pots perform their production-line functions day after day.

Modern publishing calls for real production-line methods and modern production equipment. GAS and dependable Gas Equipment render essential service in all types of publishing operations requiring heat—operations such as ink-drying, paper-curing, type-metal melting, electrotyping. Your local Gas Company will assist in selection of proper equipment for your requirements.

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For 107 years we have supplied ink to the newspapers of the world. We have kept abreast of technical developments in presses, and have supplied inks to meet ever-increasing press speeds. We pioneered the development of color inks for comics and spot color.

Our organization has grown with the country, with plants and service stations in important centers. Distribution is maintained to suit the needs of the country's newspapers.

The quality and service back of Morrill inks has built the largest organization in the newspaper ink field.

That organization can serve the largest metropolitan daily, or the smaller county weekly.

GEO. H. MORRILL
GENERAL PRINTING INK DIVISION

Sun CHEMICAL CORPORATION

ANSWERING YOUR QUESTIONS ABOUT THE DUTRO-HENDY WEB OFFSET PRESS*

Can The Dutro-Hendy Handle Any Paper Stock?

Yes, almost any—from thin papers to light weight tag stock—and in rolls. That's a pretty broad range, but it's so. Specifically that means from newsprint to the finest offset book or coated stock. It handles rough papers or smooth papers—bonds, ledgers, uncoated books, litho label and poster stock and even prints on parchments and foils with such surprising results that you won't believe it until you have actual samples. Write for them.

Will The Dutro-Hendy Press Handle Color Reproduction?

Here's a prize answer: As a mighty sales medium, color comes into its own with additional power through results obtained on the DUTRO-HENDY Offset Press. That's what customers want. You can give it to them. This new press is built on the *unit principle* with one color printing cylinder per unit. Units can be coupled together to produce any number of colors and for both side printing in any combinations which total the number of units. Using up to a 300 screen—even on newsprint—it reproduces with a fidelity unparalleled by any other printing method or by any other press—and at profit making speed.

How Fast Does a Dutro-Hendy Offset Press Operate?

Depending upon the paper stock, it can creep at 10 cylinder rpm or leap ahead at 250 cylinder rpm without disturbing the positive ink or water feed. That means a money-making production press for whatever you choose to run. It is completely automatic. By pressing an electric control button the water rollers, inking rollers and impression go into operating position in the proper sequence and with the proper timing, and on all units simultaneously . . . With such speed—up to 15,000 impressions per hour—you can have a versatile production press that eats up work in a hurry—and eats up all kinds of jobs—profitably.

Will This Dutro-Hendy Press Print Newspapers and Letterheads?

It certainly will. And with the use of pre-registered plates requiring an hour or less of make ready per color you can shift from a newspaper run to a letterhead run with very little down time. Less than a minute is required to change from folder delivery to pile delivery or to rewind when necessary. This same fast change idea holds true for any job change—from coated book to light cardboard or even from litho label to foil . . . It's this flexibility of the DUTRO-HENDY Press that makes it a glutton for work—that takes it out of the class of a specialty press good for only one kind of job.

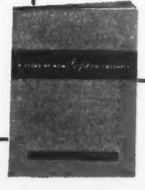
Where Can I Get More Complete Information?

Write for "A STORY OF NEW PROFIT OPPORTUNITY." It's for Lithographers, Printers and Publishers interested in modern press equipment capable of converting otherwise idle press time into profitable, chargeable hours. It gives you a picture of the stability and outstanding reputation of the 91 year old Joshua Hendy Corporation—all of whose extensive manufacturing facilities and expert technical and engineering knowledge are available for the successful manufacture of the new and revolutionary DUTRO-HENDY Offset Press.

Where Can I See A Dutro-Hendy Press?

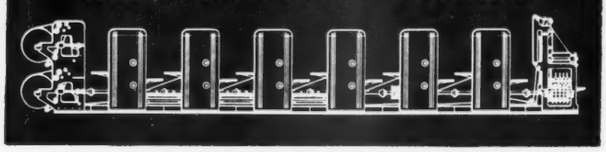
At the two week Working Demonstration to be held in October at the new $6,000,000 home of Pacific Press Inc., Los Angeles, California. Working Demonstrations will be made on all stocks mentioned and press runs will be made in various colors to demonstrate the versatility and flexibility of the DUTRO-HENDY Offset Press.

Write us. Tell us what you are specifically interested in. We will advise you of the specific dates and give you full information.



Dutro-Hendy

WEB OFFSET PRESS



Manufactured by

JOSHUA HENDY CORPORATION

601 WEST 5th STREET, LOS ANGELES 13, CALIFORNIA

* *The* DUTRO-HENDY *is a new and revolutionary high-speed automatic web offset press, so versatile it need never be idle in any plant. It is a completely new idea in a lithographic press. It produces sales impressions in texture, tone and color so realistically that "you can feel the fur with your eye."*

MULTIPLYING Machine Advantages

• *Built by INTERNATIONAL BUSINESS MACHINES CORP.*

The many advantages of SKF Ball and Roller Bearings are not restricted to those big newspaper presses that roll out 50,000 complete copies an hour nor to intricate colorgravure, magazine, intaglio or jobbing presses . . . nor to photography and engraving equipment. They're also available to business machines like this Electric Document-Originating Machine that translates punched holes into large printed figures on the end of the same or a duplicate card . . . that's also used for mark sensing, reproducing, comparing, gang punching and summary punching. On the printing device of this machine, SKF Self-Aligning Ball Bearings make certain of correct alignment year after year. With their low friction, high accuracy and minimum lubrication requirements, SKF Bearings prove themselves the right bearings in the right places in *every* phase of the printing industry. 6299

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Front St. & Erie Ave., Phila. 32, Pa.

SPECIAL 4-COLOR W

Particularly suited to rapid and economical offset printing of:

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BOX WRAPS • GIFT WRAPS

MAGAZINE INSERTS and COVERS

ADVERTISING FOLDERS, BROADSIDES, BOOKLETS, MAPS . . . and any long-run commercial work in colors, within the web and cylinder dimensions.

SPECIFICATIONS

Sheet size: approximately 30" x 40"

Speed: over 8,000 cylinder revolutions per hour

Press consists of four units in tandem, printing 4 colors one side, or 2 colors 2 sides

Adjustable trimmers on both edges of web

Delivery: flat sheet face up, or re-wound

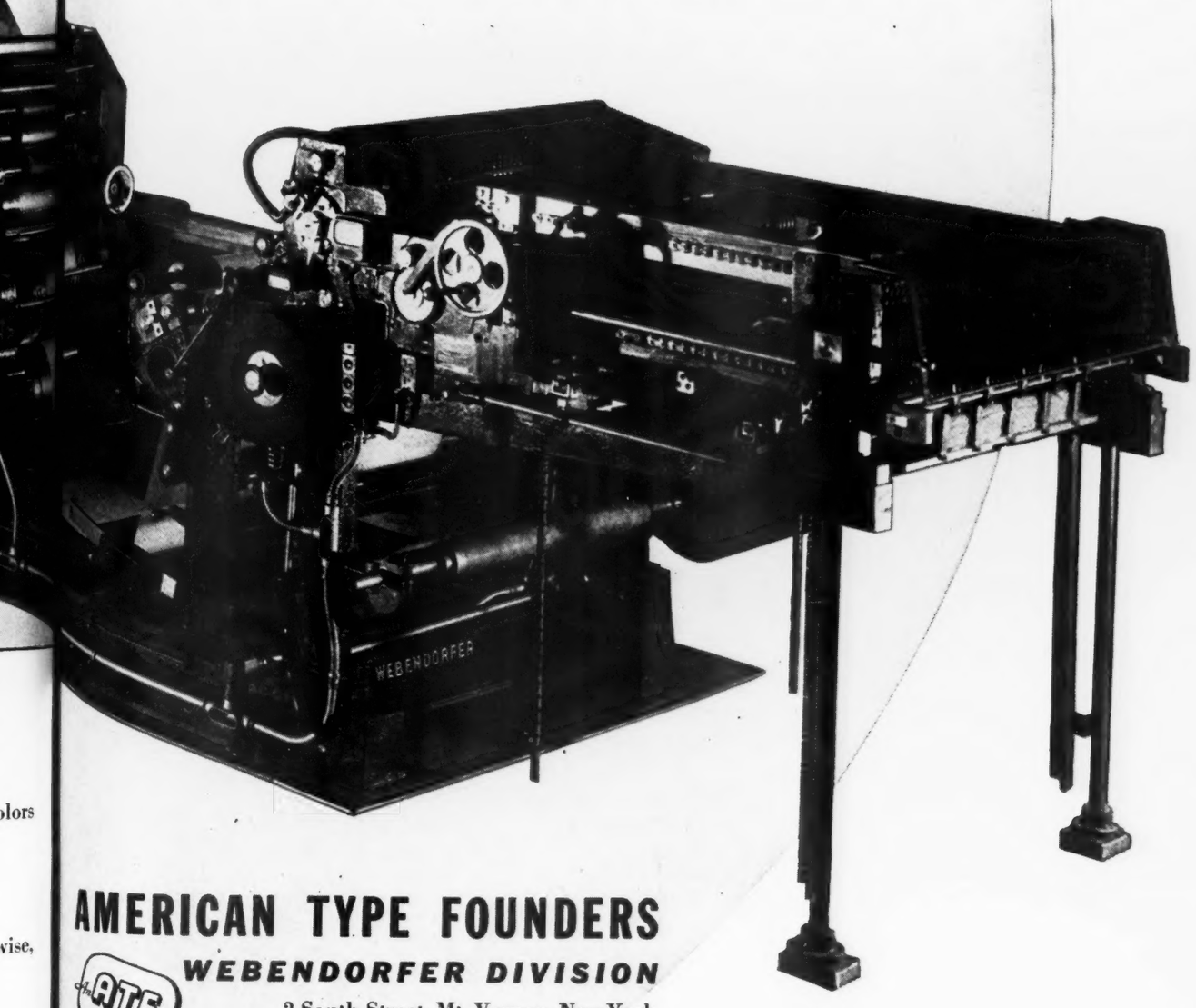
Plate cylinders are adjustable side-wise and web-wise, thus cutting down makeready time

Automatic lubrication

WEB-FED OFFSET PRESS

BY

ATF-WEBENDORFER

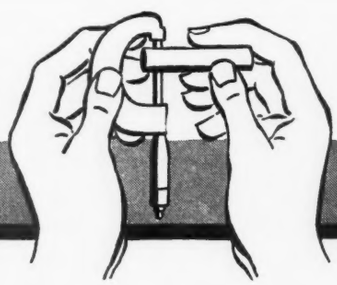


AMERICAN TYPE FOUNDERS

WEBENDORFER DIVISION

2 South Street, Mt. Vernon, New York

YOUR C&P PRESS IS MORE THAN JUST A COLLECTION OF WORKING PARTS



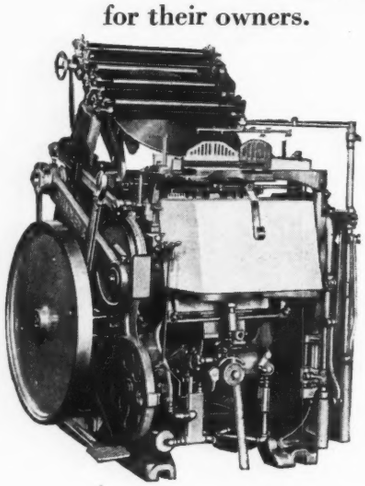
THERE'S an invisible quality built into every Chandler & Price press which means much to those who own C & P equipment.

It's the *pride of workmanship* that transforms cold iron and steel into perfectly-working, printing machines — machines that have a world-wide reputation for efficiency and long, profitable usefulness for their owners.

We *could* "skimp" on C & P equipment if we were inclined. And you might not immediately recognize the difference. But time would tell the story and in the long run someone would pay a penalty.

The C & P way is to maintain *always* a high quality of material—advanced design and construction—and a pride in the finished product—all of which lead to C & P user satisfaction.

Printing presses and paper cutters should be long-time investments. Remember this before you commit yourself on your next press or cutter.



Two profitable, popular C & P Presses

CRAFTSMAN AUTOMATIC UNITS

10″ x 15″	12″ x 18″
● One piece cast frame	● 14½ inch feeding pile
● Handwheel impression control	And 29 other features which mean better printing and profitable operation.
● Micromatic inking system (12 x 18)	

THE CHANDLER & PRICE COMPANY

Cleveland, Ohio

MANUFACTURERS OF PRINTING MACHINERY FOR OVER 60 YEARS

BETTER WAYS TO PRINT FASTER with

...SPERRY ELECTRONICS

A new industry — Electronics — promises to make for more exactness in the printing industry, and to play an active role in this industry's future. Sperry research laboratories have developed the **Sperry Printer** of abundant speed, performance . . . and range of operation.

The Sperry Corporation

E. G. STAUDE DIVISION

ROTARY PRINTERS AND CARTON MACHINERY

PRINTED BY GRAVURE

NEW YORK	ST. PAUL	CHICAGO	EXPORT
FORD INSTRUMENT BLDG. 31-10 THOMSON AVENUE LONG ISLAND CITY 1, N. Y. STILLWELL 4-9000	2675 UNIVERSITY AVENUE ST. PAUL 4, MINN. NESTOR 7151	2400 W. MADISON STREET CHICAGO 12, ILL. SUITE 615 MONROE 3480	FORD INSTRUMENT BLDG. 31-10 THOMSON AVENUE LONG ISLAND CITY 1, N. Y. STILLWELL 4-9000

Hammond EasyKaster "8"

MAKES CASTING *EASY!*

The Hammond Full-Page EasyKaster "8"'s large 800 lb. melting pot and efficient gas combustion chamber provides a continuous supply of hot metal. Casts are made as fast as they are removed from the box. Valve controlled pouring provides any desired rate of metal flow without splashing or spilling. The bed rolls into pouring position. Four point spring loaded automatic lock-up insures equal pressure distribution over entire area of the beds. Hammond EasyKasters save up to 50% in casting time over older slower methods.

3 SIZES

5 Col. x 20 inches
6 Col. x 24 inches
8 Col. x Full Page

Hammond Radial Router

HAS WHAT IT TAKES

The NEW Hammond Radial Router has power and ruggedness, yet, the correct "feel" and sensitivity the operator needs. It features a ½ HP regular type motor with belted drive to the ball bearing spindle, providing constant 12,000 RPM spindle speed under all routing conditions.

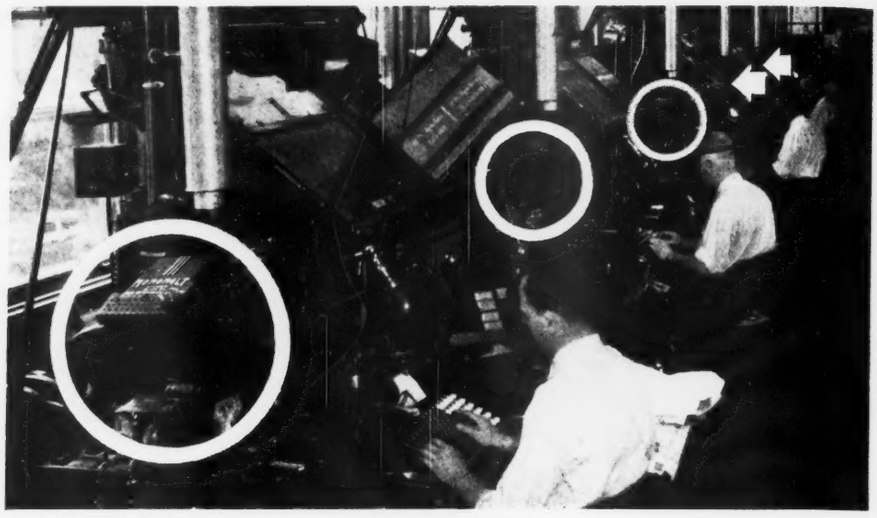
The large table handles up to full-page plates. Any size plate is locked quickly in place by the Quick Adjustable Clamps which slide in the table slot. The work point is lighted by two lighting fixtures which provide shadowless illumination.

2 Hammond Routers

MODEL R-4 HAMMOND RADIAL ROUTER (illustrated)
MODEL RP-12 HAMMOND ROUTER PLANER

Hammond Machinery Builders INC.

1604 DOUGLAS AVENUE • KALAMAZOO 54, MICHIGAN



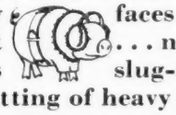
In Ad Alley, they say...

MONOMELT Is A "MUST"

for Casting Big Display Lines

Slug-casting machines in the ad composition department "must" be equipped with MONOMELT units for normal operation when casting display types, operators declare.

With MONOMELT they can get continuous operation of machines casting large display faces . . . no need to hold up production while cold pigs melt . . . no recasting due to hollow slugs. Only MONOMELT gives slug-casting machine sufficient metal capacity for steady setting of heavy display lines.



Look at these MONOMELT Advantages

MONOMELT offers distinct advantages for both display and straight-matter machines. Eliminates furnace melting and metal pigging . . . keeps metal in machine pot at constant temperature . . . does away with squirts, fouled throats and other metal troubles . . . provides cleaner, sharper slugs.

How the MONOMELT Operates

MONOMELT, the single melting system, is made for Intertype, Linotype, Monotype, Ludlow, Elrod, and other typecasters and material makers. Dead slugs, saw trimmings and even sweepings from under the machines can be dumped directly into the MONOMELT hopper. Here it is melted and cleaned, then fed at the proper temperature directly into the machine pot. Metal handling is reduced to a mimimum; machine efficiency is increased.

WRITE TODAY for new illustrated bulletin showing how MONOMELT can help you.

THE

MONOMELT CO., Inc.

1611 N. E. POLK STREET MINNEAPOLIS 13, MINNESOTA

TIMKEN BEARINGS MAKE GOOD IMPRESSIONS

Photographed in Chicago Tribune press room, showing part of Goss 60,000 an hour capacity press equipped with Timken Bearings on all plate and impression cylinders.

— on the paper — on the printer. They make good impressions on paper because they hold plate and impression cylinders in permanent precision relationship. They make good impressions on printers because presses equipped with them have proved their ability to do better work at reduced cost.

For besides assuring greater operating accuracy, Timken Tapered Roller Bearings make possible higher printing speeds; simplify lubrication; and cut maintenance. Presses last longer because they are fully protected against friction, wear and radial, thrust and combined loads.

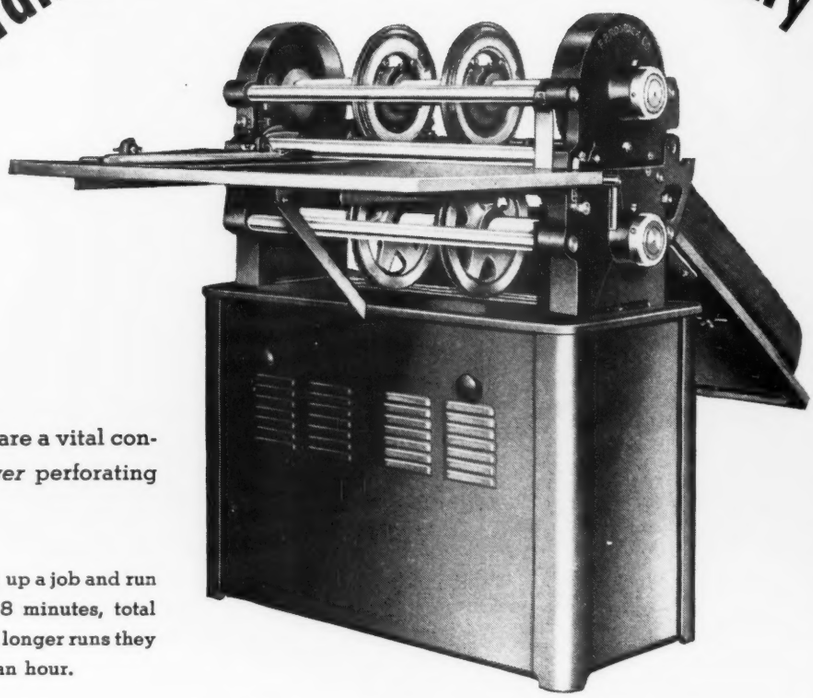
The more Timken Bearings there are in your presses the better they will perform and the better they will *sell*. Our engineers will be glad to work with you in applying Timken Bearings to your equipment. Write us when you are ready. The Timken Roller Bearing Company, Canton 6, Ohio.

TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.
TAPERED ROLLER BEARINGS

NOT JUST A BALL ◯ NOT JUST A ROLLER ⬭ THE TIMKEN TAPERED ROLLER ⬭ BEARING TAKES RADIAL ⓘ AND THRUST →◯← LOADS OR ANY COMBINATION →✳←

★IT COSTS LESS

• to do your perforating with the Rosback Pony Rotary



If perforating *costs* are a vital consideration you'll find the answer to *lower* perforating costs in the Rosback Pony Rotary.

Proof Users state they can set up a job and run a thousand sheets in 18 minutes, total average time including set-up. On longer runs they regularly average up to 10 reams an hour.

If *quality* of perforating is important to you, and to your customers, the Pony Rotary turns out the finest perforating to be had at any price.

Proof The Pony Rotary makes a true round hole, using perforating punches and dies of finest steel. Sheets tear easily along lines of perforation because perforations are cut clean without leaving burrs and ragged edges around the holes.

It is this unparalleled record of quality production, *at low cost,* that has made the Pony Rotary first choice in perforating equipment in thousands of plants, both large and small. A study of your own perforating cost records will quickly prove that a Pony Rotary can earn more profit dollars, in proportion to investment, than any other equipment you can buy.

Ask your Rosback Dealer for your free copy of our new perforator bulletin, or mail coupon below.

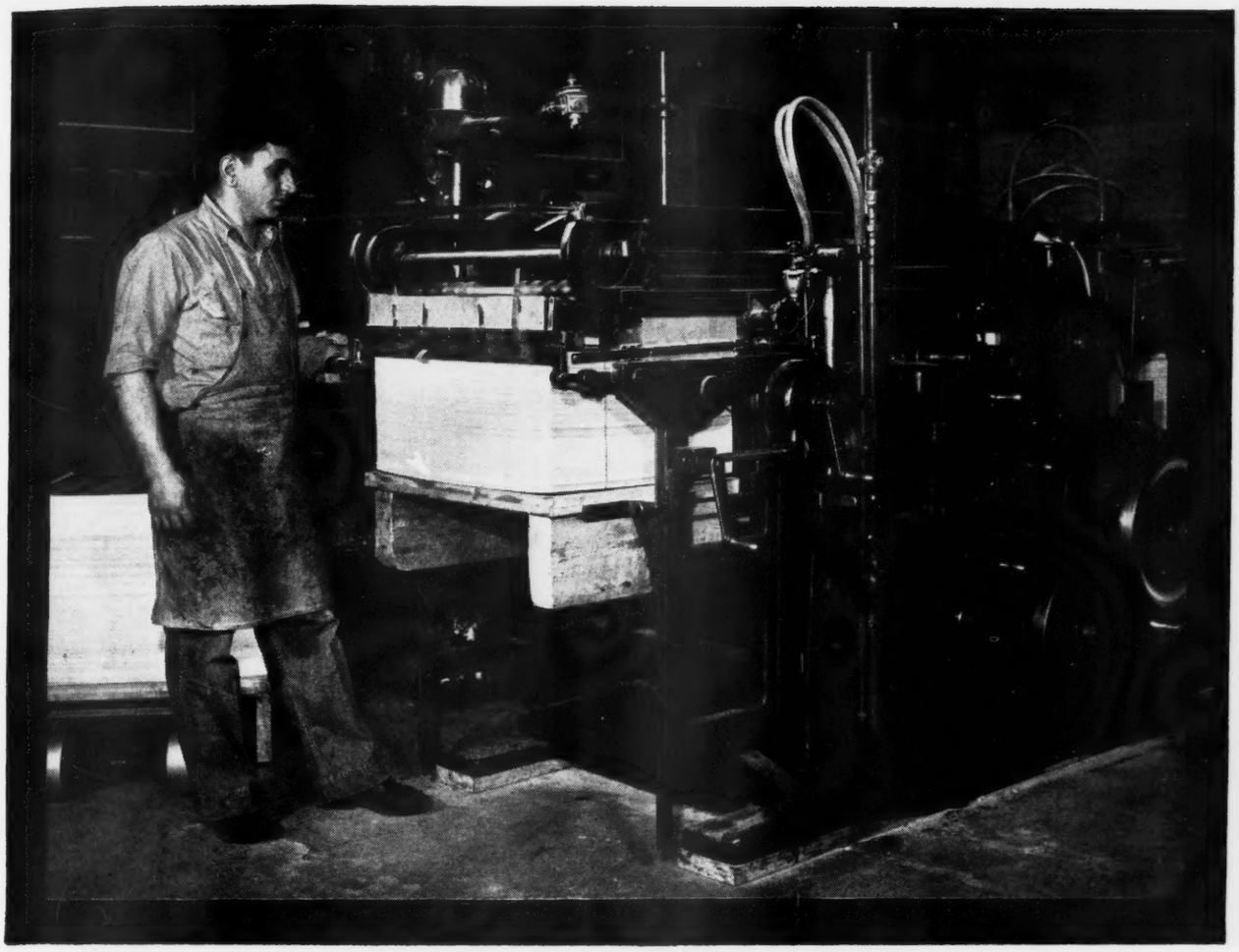
F. P. ROSBACK COMPANY, BENTON HARBOR, MICH.

World's Largest Manufacturers of Perforators, Gang Stitching Machines and Paper Punching and Drilling Machinery

★ **F. P. Rosback Company, Benton Harbor, Mich.**
Please send me free copy of new perforator bulletin showing how the Pony Rotary can cut my perforating costs by 50% *or more.*

Your Name _____ Company _____

Street Address _____ City _____ Zone _____ State _____



"We are saving $6 a day in press time"... says this "SPHEREKOTE" Tympan Cover user*

All over the country operators of printing plants are learning that "SPHEREKOTE" Tympan Cover offers an easy, effective way to cut a substantial slice off production costs.

One such owner writes us, "For the past 15 days, one of our Miehle presses has been running the second color on a two color display card job. At the start of the job we found that we had to replace ordinary drawsheets twice a day to eliminate offsetting. Today, on the same press and the same job, a 'SPHEREKOTE' Tympan Cover gives us a full week's production without a change. From 14,000 impressions per day, production has climbed to as many as 19,000 impressions. The saving in press time and the increased production we have secured with your drawsheet represent a saving of at least $6.00 per day on this one press alone. The first week's saving nearly paid for the entire roll of 'SPHEREKOTE'."

If you haven't already learned how "SPHEREKOTE'S" glass sphere coated surface reduces offset, improves printing quality, increases production and reduces shop cost, write today for complete information.

*NAME UPON REQUEST

SPHEREKOTE
TYMPAN COVER

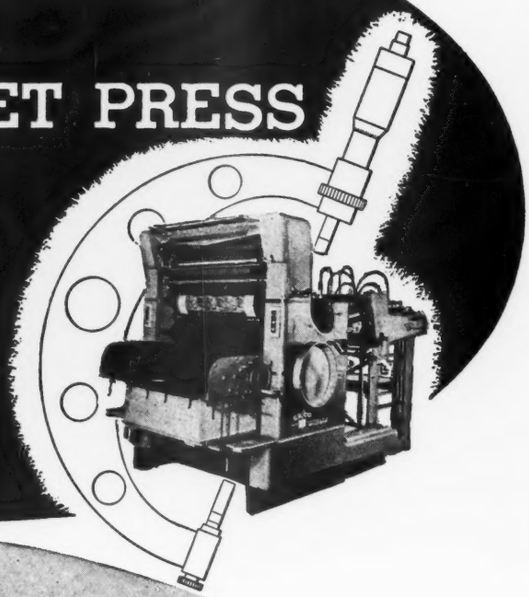
Minnesota Mining & Mfg. Co. AP647
St. Paul 6, Minn.

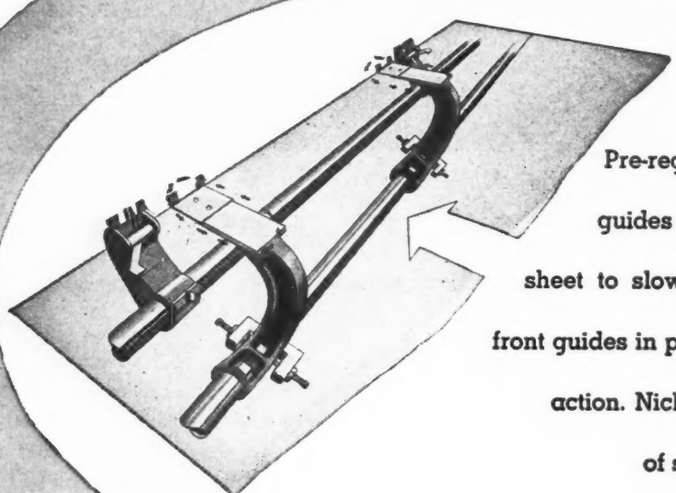
Please send us prices and a sample swatch of your "SPHEREKOTE" Tympan Cover.

Name.....
Firm.....
Address.....
City.....*Zone*.....*State*.....

EBCO willard OFFSET PRESS

Registers with Lithographers





Pre-register slow-down guides meet and transmit sheet to slow stop square to front guides in positive dependable action. Nicking and denting of sheets eliminated.

THIS IS ONLY ONE OF THE MANY IMPORTANT FEATURES

FOR COMPLETE DETAILS SEND FOR BOOKLET. CLIP THIS COUPON TO YOUR LETTERHEAD.

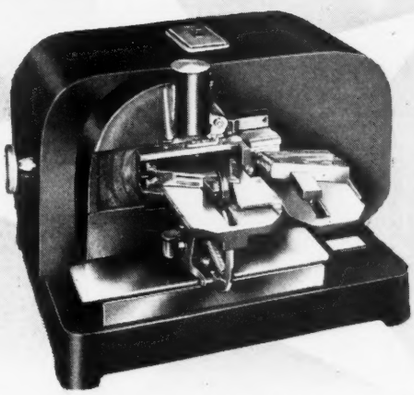
EBCO willard

PRINTING MACHINERY DIVISION
ELECTRIC BOAT COMPANY
445 PARK AVENUE, NEW YORK 22, NEW YORK

The EBCO *Willard* PRESS will be on display at the N.A.P.L. Convention —Hotel Book-Cadillac, Detroit, Michigan, October 22-23-24-25.

Star Performers

IN ANY COMPOSING ROOM

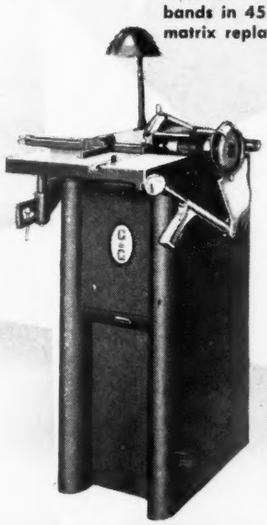


Morrison SPACE BAND Cleaner

Polishes and cleans 30 space-bands in 45 seconds — reduces matrix replacement cost.

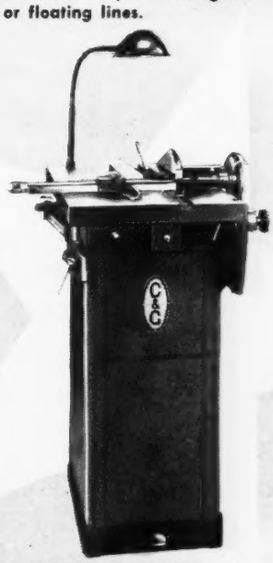
Morrison SLUG STRIPPER

Strips type face of any slug or single type character to thickness of zinc, electro, or shell stereo, for making corrections or floating lines.



The "C&G" Model "45" SAW TRIMMER

Medium priced saw trimmer — with the "Pistol Grip" saw blade adjustment — accurate to .001 of an inch. Has many features of the famous C & G Model 3-A, including the successfully proven C & G clamping method.



The "C&G" Model 3-A Saw Trimmer

The most outstanding saw trimmer ever built — A truly heavy duty composing room saw — celebrated for speed of operation, durability and economical performance. Used by the leading newspaper, trade composition and printing plants throughout the Country.

Put these machines to work in your composing room. Get the best results in the least time, and with the lowest maintenance cost. For full details, write for descriptive literature, and list of users in your vicinity.

THE MORRISON COMPANY

125 W. MELVINA ST. • MILWAUKEE 12, WIS.

FOUR COLOR PROCESS Plates for Letterpress Printing

STEP AND REPEAT for Letterpress Printing

PLASTIC PLATES for Letterpress Printing

Now... A COMPLETE PRINTING PLATE SERVICE

FROM

PROCESS COLOR PLATE CO.

Produced by skilled, conscientious craftsmen rendering a faithful, superior plate service to discriminating printers.

FULL COLOR PLATES for Offset Printing

RUBBER PLATES, Molded and Engraved, for Letterpress and Analine Printing

DECORATING ROLLERS for Printing Fancy Papers, Wraps

PROCESS COLOR PLATE CO.

Photo Engravings • Offset Plates • Molded and Hand Engraved Rubber Plates • Plastic Plates

522 S. CLINTON ST. • CHICAGO • HAR. 1237

KEEPING IN TOUCH

PREPARED BY INTERNATIONAL PRINTING INK DIVISION OF INTERCHEMICAL CORPORATION • AUGUST, 1947

GEMTONE* PROCESS INKS END DRYBACK; COLORS SPARKLE, DRY FAST, PRINT SHARP

Developed for Sheet-Fed Press Work

Dry on Top of Sheet Without Heat

Every pressman who has done four-color process work on a sheet-fed press has seen his best work lose some of its original brightness and sharpness because of a factor beyond his control. This factor is *dryback*, the tendency of even the best of conventional oil inks to penetrate and spread into the paper as they dry, blurring the halftone dots, dulling the colors, and dimming the highlights.

IPI Gemtone process color inks virtually eliminate dryback.

They set and dry on top of the sheet. Colors sparkle. Halftone dots remain sharp, and highlights bright.

The brilliance and strength of the Gemtone colors create a glossy effect that heightens the "snap" of the job. Printers are enthusiastic and customers have gone out of their way to compliment printers on the sparkle and beauty with which their products are pictured.

Inks Trap Beautifully; Crystallization No Problem

Other factors, in addition to dryback, which have created problems in four-color process printing are trapping and crystallization.

IPI Gemtone inks trap beautifully, increasing the strength of color.

As for crystallization, printers who have used Gemtone inks report that their crystallization worries are over. In fact, one printer has said, "Gemtone inks are practically foolproof."

Gemtone inks save hours drying time between press runs. They dry by an advanced principle similar to that developed for the famous IPI Vaporin† inks used on the fastest traveling webs. Unlike Vaporin inks, however, Gemtone inks do *not* require heating equipment for their use.

They give good mileage because no ink is lost in penetration.

Already Widely Used in Commercial Plants

Gemtone inks are press-tested, proved, commercial inks ready for commercial use in your plant. They have been used with great success for process work on single-color presses, two-color presses, and four-color presses.

Gemtone inks are used by commercial printers for catalogues, direct mail, displays, inserts and labels, any type of quality, four-color work. They are also employed on the four-color pages of many national magazines in the quality group.

Let us give you more specific information about results secured with Gemtone. Even if you do little four-color process work, write for information. Gemtone inks are one of those significant developments in printing progress that a printer likes to know all about.

Write International Printing Ink, Division of Interchemical Corporation, Empire State Building, 350 Fifth Avenue, New York 1, New York.

*Trade Mark †Reg. U. S. Pat. Off.

Customers say, "Gemtone Inks Sparkle!" Here's why Gemtone printing looks almost as brilliant when dry as it does when it comes off the press wet. These two unretouched photo-micrographs show why. (LEFT) *Photomicrograph of impression made with ordinary oil inks showing blurred halftone dots.* (RIGHT) *Photomicrograph of impression made with IPI Gemtone type ink, same spot on plate as on left, showing clean, sharp dots. Here virtually all the ink has stayed on the surface of the sheet. Printing is sharper, color stronger.*

PERFORMANCE

PUTS THEM OVER

on the diamond... or on the presses

No question about it . . . real ability pays out. Great performance nets the top dividends every time. And this obvious fact is as true in the pressroom as it is on the baseball diamond. That's why so many leading printers and lithographers use AMERICAN ROLLERS exclusively. There's championship calibre in these rollers . . . there's definite "pennant play" in their every day's work . . . and they score big with top-quality production on every job.

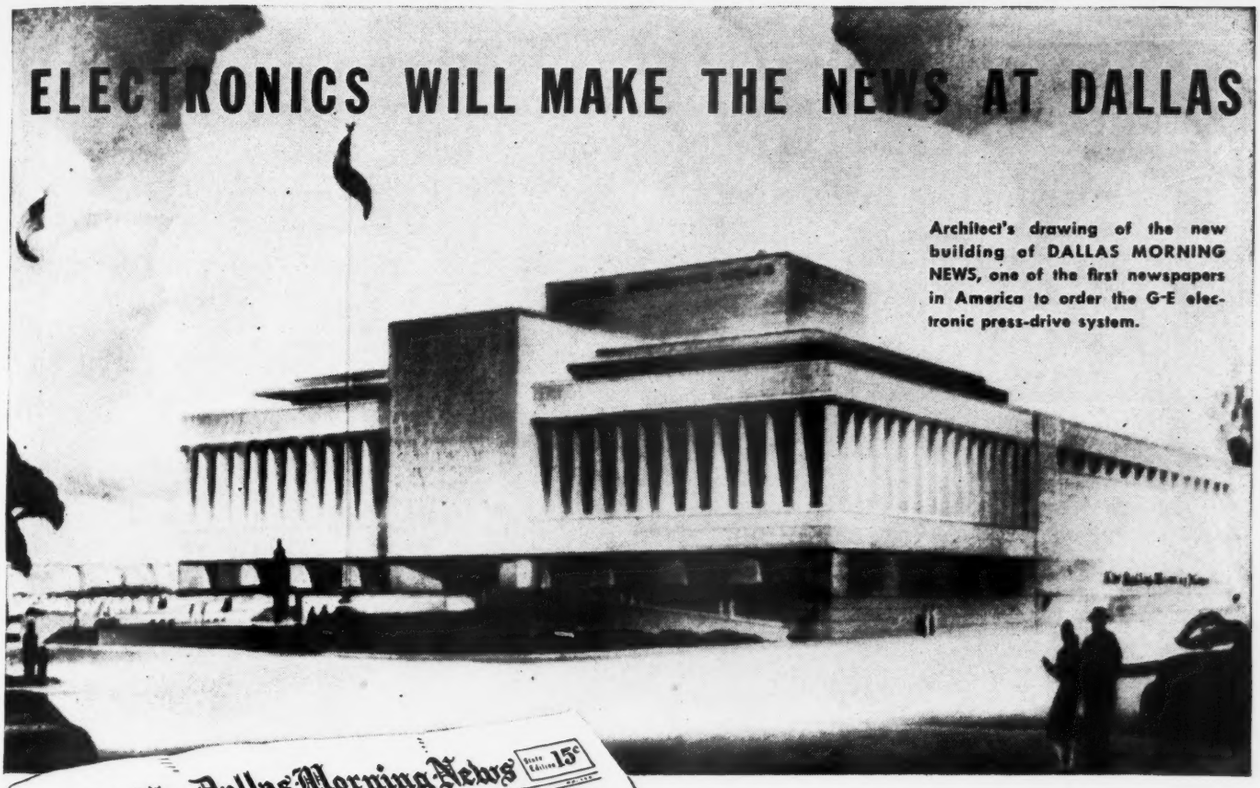
Rigid factory control is the answer. From start to finish AMERICAN ROLLERS are subject to the strictest manufacturing regulations . . . in raw materials . . . in processing . . . in finishing . . . in final conditioning. And these are no "rule-of-thumb" controls . . . no mere guesswork. They're the stern functioning of the most modern, scientific and automatic curing apparatus and conditioning equipment. That's why AMERICAN ROLLER quality is positive and consistent. It's built in and sealed in . . . scientifically. Order a set and see for yourself the remarkable service they give.

American Rollers

COMPOSITION
FABRIC COVERED
LITHOGRAPH
SYNTHETIC RUBBER

AMERICAN ROLLER COMPANY
1342 NORTH HALSTED STREET CHICAGO 22 ILLINOIS

ELECTRONICS WILL MAKE THE NEWS AT DALLAS



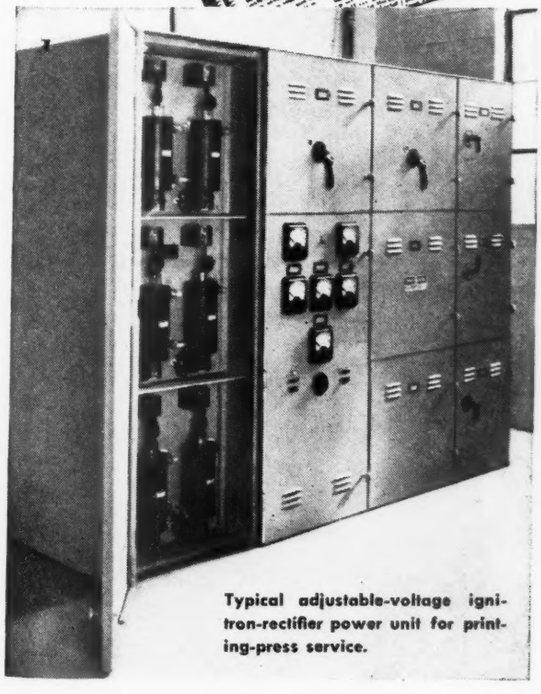
Architect's drawing of the new building of DALLAS MORNING NEWS, one of the first newspapers in America to order the G-E electronic press-drive system.

The Dallas Morning News

ORDERS THE NEW G-E ELECTRONIC PRESS DRIVE

FIRST IN THE SOUTHWEST

Mark of a progressive management, this installation of the new G-E electronic press-drive system at THE DALLAS MORNING NEWS will mean greater flexibility and efficiency in the press room. This alert newspaper is aware of the outstanding advantages inherent in this unique drive system that uses ignitron rectifier tubes to supply both power and control to d-c press motors.



Typical adjustable-voltage ignitron-rectifier power unit for printing-press service.

ELECTRONICS DOES IT

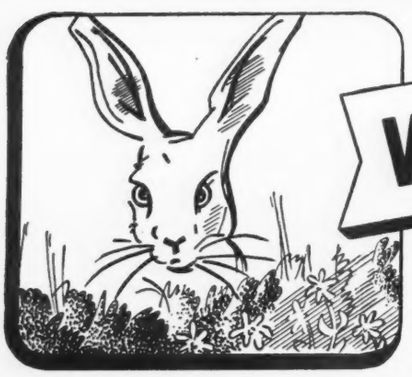
Industry's magic word has a new meaning in the press room as the ignitron rectifier tube converts a-c to d-c power for smooth operation of practically any press combination desired. Electronics allows practically constant high-operating efficiency down to half-geared speed. Motors are press-mounted, and because there are no slow-motion motors, overrunning clutches, or brakes, special foundations are not required, there is more space in the press or reel room, maintenance is simplified.

In the control room metal-enclosed cabinets containing the electronic tubes, feeder breaker, reactor, and magnetic devices are so designed that they make a modern streamlined load-center unit. The rectifier operates from 440-volt, three-phase power supply, and furnishes adjustable voltage to press-mounted direct-current motors. Operation from a push-button control station is the same as for other G-E drives. However, speed changes are practically infinite in number.

This drive system is suitable for most large newspaper, magazine, and rotogravure presses. If you, too, are planning for a new press, investigate the G-E electronic press drive. You'll get better all-round press performance at substantial power savings. The nearest G-E office will gladly give you more information. *Apparatus Dept., General Electric Co., Schenectady 5, N. Y.*

GENERAL ELECTRIC

658-18C-8609

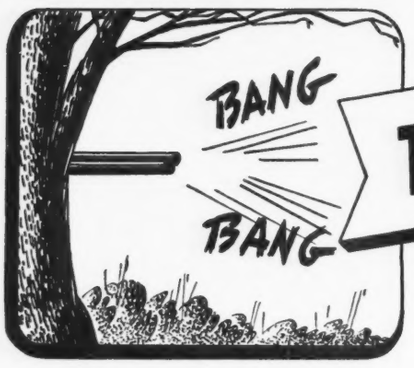


WHEN

MORE STEREO CAPACITY IS NEEDED

MONTHLY FUEL BILLS LOOK TOO BIG

YOU ARE LOSING TOO MANY CASTS



THEN

switch to modern practical KEMP immersion-gas-firing

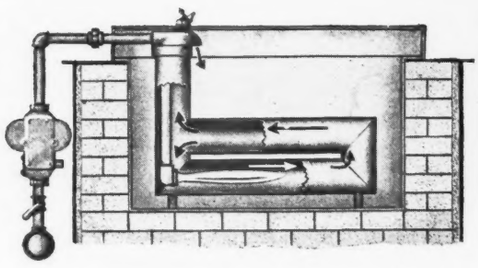
WHETHER you need more capacity or just want to improve present practice, a switch to KEMP stereo melting is profitable — because a KEMP immersion-fired pot quickly *saves enough to pay for itself*—then saves for you.

Here's why. First, a slash of 40% in fuel costs has been average experience in over 200 cases. Second, KEMP firing sharply reduces dross loss. Third, temperature control is so precise you enjoy sharper, surer casting results; cut time, labor and rejects.

KEMP firing puts the heat to work *inside* the pot, not under it. Result: maximum heat transfer with minimum fuel expense and remarkable speed. Even the "waste" exhaust gases are used — they blanket the metal, reducing oxidation and preventing heat losses.

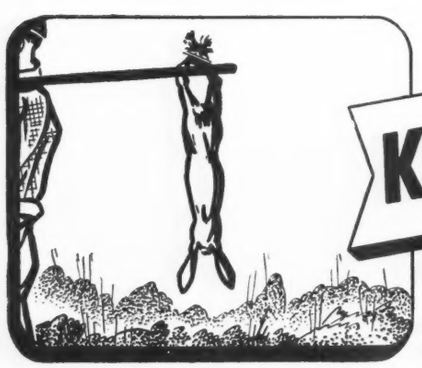
And the exclusive KEMP industrial carburetor comes with the job — to squeeze every pennyworth of heat from your gas supply.

There's a coupon in the corner.



HEAT THE *METAL*—NOT THE POT

Combustion is within tubular loops totally immersed in the metal. Recirculation of hot combustion gases around each loop (driven by the force of the burner flame) promotes efficiency and uniformity of temperature over the loop surface. When the hot gases do exhaust, they vent down over the molten metal surface, reducing heat losses from the system, and minimizing dross. Stereotype metal capacities from 2 to 12 tons—production rates from 20 to 480 plates per hour per pot—round, square and elongated shapes.



KEMP OF BALTIMORE

PRECISION CARBURETION + ADAPTED COMBUSTION FOR INDUSTRY'S HEAT USING PROCESSES

ATMOSPHERE GENERATION & ADSORPTIVE DRYER SYSTEMS FOR PROCESS CONTROL AND PROTECTION

JMLeo K-J1 pe

THE C. M. KEMP MFG. CO.
405 E. Oliver Street, Baltimore 2, Md.

Send me your new 2-color 12-page booklet on stereo melting.

NAME_____

TITLE_____

COMPANY_____

PLACE_____

Hoe Color-Convertible Newspaper Press Unit With Extra Color Cylinder.

. . . when and where you need it

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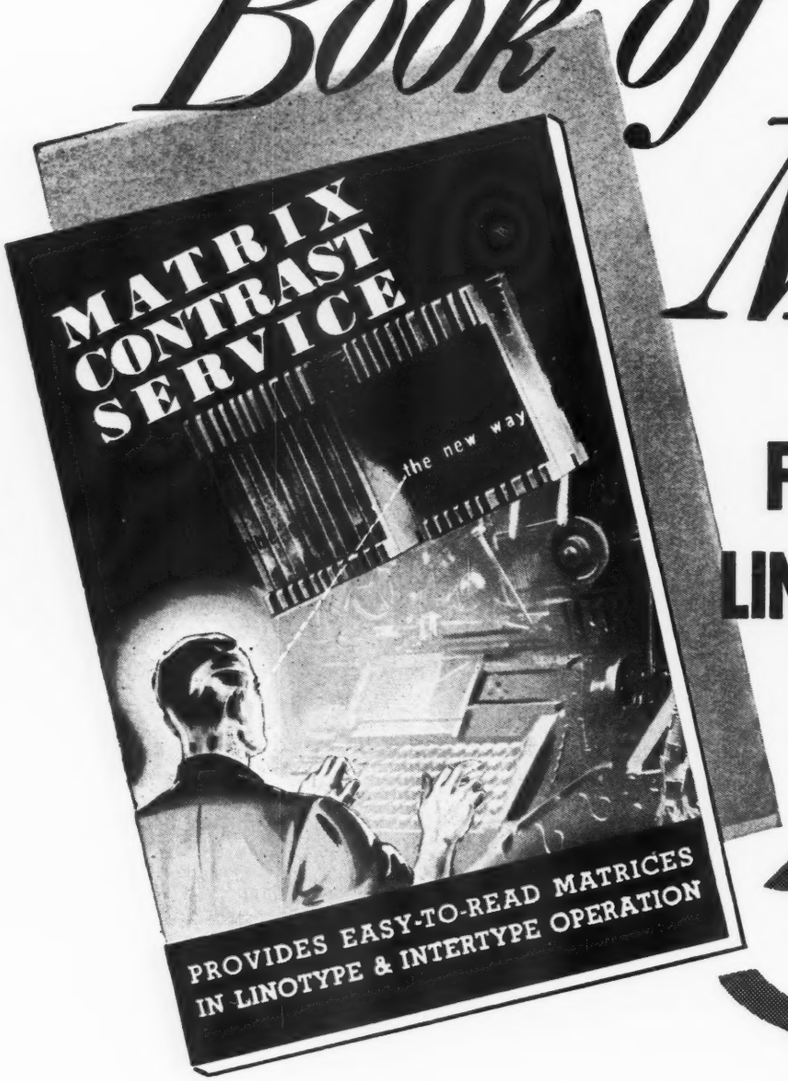

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International Craftsmen Officers and Miniature Biographies

PRINTING EQUIPMENT ENGINEER publishes this pictorial section so that members of the International Association of Printing House Craftsmen may know their officers—at least portrait-wise. Since Craftsman membership is sprawled over a considerable geographic area, many members do not have opportunity to meet the official family. In this presentation we have included in addition to portraits of all officers a number of Miniature Biographies of those who have taken up their duties within the past year and whose biographies have not been published previously in *Printing Equipment Engineer*. A new section is included this year—portraits and biographical sketches of district representatives.

Incidentally, for the benefit of the newer Craftsmen we want to say that if you should come to the Saratoga Springs convention and want to meet any of these men personally, just take the initiative and extend the glad hand. They think in terms of the overall membership. Practically all of them are executives in printing plants or they have a printing plant background. They know your language and enjoy discussing the same things you do.

W. H. (Bud) GRIFFIN
President

A. GORDON RUITER
First Vice President

GRADIE OAKES
Second Vice President

RUSSELL J. HOGAN
Third Intl. Vice President

FOR the past three years, Russell J. Hogan has been Plant Manager of the Blanchard Press, New York. This is one of New York's oldest and largest printing plants. In addition, he has found time for Craftsman activities, now being Third International Vice President. He has served the New York Club in a number of offices previous to functioning as two-term President.

By training and largely by preference, Hogan is a champion of letterpress printing. No one can say, however, that he

RUSSELL J. HOGAN
Third Intl. Vice President

isn't fair. He has spoken upon many occasions before Craftsmen and other printing groups upon the excellencies of the process.

Hogan was born in Philadelphia. In 1918 he became pressroom apprentice with the *Farm Journal* where he gained experience with multicolor, magazine web, flatbeds and McKee process presses. Subsequently, in search of broad experience, he associated himself with Cincinnati's U. S. Printing & Litho Co., Carey Printing Co. in Bethlehem, Pa., and later to the Conde Nast Press at Greenwich, Conn. In 1926 he went to New York and worked as makeready man. Later he was made assistant superintendent of Daniel Moscow, Inc. To increase his knowledge of photo-engraving he went with McCalls Magazine Photo-engraving Co., in Stamford, Conn. Began as proofer on Claybourne four-color press; in 1936, after having been made superintendent of several other departments, he returned to New York. Upon his arrival he was made General Superintendent of Daniel Moscow, Inc. (now the Wickersham Press). In 1944 he became Plant Manager of the Blanchard Press which position he now holds.

His hobby is printing education, having taught at the New York Employing Printers School. For some time he has contributed articles to printing trades magazines on presswork.

EDWARD T. SAMUEL
Treasurer

PEARL E. OLDT
Intl. Executive Secretary

THE International Association of Printing House Craftsmen since June 1 is employer of its first full-time paid executive secretary. Thus the Association has taken the first step from a purely voluntary organization in which all of its officers and representatives serve without remuneration. It can be seen that with approx. 68 local clubs and about 9000 members sprawled about the continent and in a number of foreign

PEARL E. OLDT
Intl. Executive Secretary

countries there is need for a full-time executive secretary.

Pearl E. Oldt was the unanimous selection of the membership and the Intl. Board of Governors. Executive Secretary Oldt goes into the first year of his new duties backed by the confidence of all Craftsmen. It is understood, of course, that this is a new experience both for Mr. Oldt and the membership—both will sort of have to grow together. *Printing Equipment Engineer* thinks this is possible because of the secretary's calibre. His personal character and his immediately previous profession should qualify him. We don't mean that his pedagogic traits will be carried over into his dealings with the membership but rather that such training is invaluable for his new work.

Pearl E. Oldt is a member of the Grand Rapids (Mich.) Club. He served that club two terms as President and was its Secretary for 12 years. Surely this record of service with his local club membership is an indication of the man's stability.

Pearl E. Oldt attended the University of Nebraska, Lincoln, Neb.; Western State Teachers College, Kalamazoo, Mich., and University of Michigan, Ann Arbor, Mich. He carries the degrees of Bachelor of Science and Master of Arts. He has been associated with the Grand Rapids Board of Education for 20 years; he was a teacher of printing at Central High School.

Earlier in his career, Oldt became a journeyman compositor in the plant of the Fred W. Ruckert Co. and the American Printing Co. in Lincoln, Neb. He taught printing for seven years at Robidoux Polytechnic Schoolin St. Joseph, Mo.

He is a member of St. Joseph Masonic Lodge, St. Joseph, Mo.; De Witt Clinton Consistory, 32nd deg., AASR, Grand Rapids; Miola Temple, Nobles of the Mystic Shrine, St. Joseph, Mo., and is Past Worthy Patron, Areme Chapter No. 461, Order of the Eastern Star, St. Joseph, Mo.

Like most men, he has hobbies. He likes to work with figures (Nope, they're mathematical), likes mechanics and fusses with intricacies of radio.

He is married and has a daughter 15 years of age.

H. GUY BRADLEY
Immediate Past President

HOMER WINKLER
Chairman, Educational Commission

D. W. STOCK
Part-Year Chairman
Publications Commission

D. W. (Bill) STOCK (Cleveland Club) served a portion of the year as Publications Chairman until other interests precluded further service in this capacity. He was succeeded in office by Russell Olander (Chicago Club). Stock is manager of Lawrence Electrotype Co., Cleveland, which position he has held for nine years. In the trade he has been compositor, lockup man, Linotype operator,

D. W. (BILL) STOCK
Part-Year Chairman
Publications Commission

and composing room foreman. He is a graduate of John Carroll University and received the degree of LL.B. from Cleveland Law School. In the Cleveland Club he served as secretary for five years and was Publicity Chairman of the XVIIIth Intl. convention in Cleveland in 1937. More or less continuously he has served as reporter for *SYK Review*, *Cleveland Craftsman* and has promoted many affairs in Cleveland Graphic Arts circles. He is married and has three children: Robert T., 19; David G., 17, and Mary Claire, 15.

RUSSELL L. OLANDER
Chairman, Publications Commission

RUSSELL OLANDER is finishing out the official year as Chairman of the Publications Commission. He succeeds D. W. (Bill) Stock who resigned because of the pressure of business. Olander's career in the Graphic Arts consists of just that—he likes every branch of the business, in fact he likes printing. He has been associated with

RUSSELL L. OLANDER
Chairman, Publications Commission

the industry for 30 years, started as an apprentice in the composing room and is not in the owner category. He is a member of the Chicago Club and has served it as secretary. He seems to be taking the editorship of *Share Your Knowledge Review* in stride.

HERMAN A. SLATER
Chairman, Research Commission

GORDON J. HOLMQUIST
Chairman, Public Relations Commission

PERHAPS it is only natural (since California citizens are strictly promotion minded) that President Griffin turned to a California Craftsman to assume the chairmanship of the Inter-

GORDON J. HOLMQUIST
Chairman, Public Relations Commission

national's Public Relations Commission. After you have read about Gordon Holmquist's activities you'll understand why he was selected. He has been a partner in the Cole-Holmquist Press, Los Angeles since 1941. In this firm's business he likes best creative typography, layout and design. All of his business experience previous to present partnership was with the Times-Mirror Printing & Binding House in Los Angeles (1928-1941). Here he served successively in production, as sales director, sales promotion and in book production. He graduated from the University of California at Los Angeles with B. A. degree. His hobby is music (he worked his way through college playing in an orchestra); other hobbies are book collecting and golf. He has served as Vice President and President of the Los Angeles Club. He's also a Past President of the Pacific Society of Printing House Craftsmen. Is a member of the Permanent Committee for Promotion of Graphic Arts, Los Angeles Public Library, and is a member of the Rounce and Coffin Club.

Printing Executives are invited by the editor to submit descriptions of devices or methods which have been devised in their plants. These will help others.

District Representatives

of the International Official Family

IT WOULD be a great service if the President of the International Association of Printing House Craftsmen had the time to spare away from his business (and the money) to visit every Club once a year. Members like to meet the President in person. Being a voluntary organization, however, that just isn't possible. Most presidents have already sacrificed much in order to serve the Association. The District Representatives really are personal representatives of the President and serve the Association as such.

Now, in order to serve the International, a District Representative must have a number of qualifications. He must be an outstanding Craftsman; he must have the time away from his regular job at his disposal to visit all of the clubs in his district; he must have the financial resources to pay traveling expenses; he must be an organizer and know how to meet people. As a rule, actual printing plant production executives do not qualify because of the demands made upon them in their regular work. So this leaves the selection of district representatives to be made from two classes of Craftsmen: (1) Those that own their own business and can afford to take time away from it, and (2) Manufacturer and supplier representatives whose companies are agreeable to their service as International Representatives. Mostly, District Representatives have been through the production mill in printing plants and know the mental attitude of the average Craftsman. Their visits with local clubs are eagerly looked forward to because of their knowledge of International affairs and their overall industry-wide viewpoint.

District Representatives have not been accorded a voice in the International Board of Governors in the past. But under the new Executive Secretary Plan passed at the Montreal Convention in 1946, official recognition is accorded them since they are now to meet with all International Board meetings.

Being an International Representative, of course, is purely voluntary work —one may indulge in it over a long or a short period of time (everything else being equal). We believe the man who has served longest in point of continuous service is Ollie G. Fricke, Fifth District Representative.

Anyhow, *Printing Equipment Engineer* is glad to accord recognition to these men who have done and are doing valuable work by presenting short biographical sketches and portraits of most of them.

Here they are:

JOHN L. REAY
Representative-at-Large

DeWITT A. PATTERSON
Foreign Representative

THE name, DeWitt A. Patterson, produces a pleasant response among those Craftsmen who know the gentleman personally. Amiable but always serious, Patterson has done a lot of work for the International Association of Printing House Craftsmen. We feel the Association is fortunate in being able to avail itself of his services. Patterson is Managing Director, International Publishing Div. of Crowell-Collier Pub. Co. with offices in New York, N. Y. His is an unusual career in the Graphic Arts. He is a graduate of Chicago Art Institute and Chicago School of Commerce. He is a Past Vice President and Past Educational Commission Chairman of the International Craftsmen's Association. He is also a Past President of the Chicago Club. At one time he was Vice President and General Manager of the Rosenow Co., Chicago, gravure printers. During the late war he was connected with OWI, being Chief of Publications Printing Div. in New York. He is one of that hardy group of Americans who espoused sheet-fed gravure in 1928. His current hobbies are research, painting and outdoor recreation. During the past three years he has traveled over 100,000 miles by air to all parts of the globe. Right now he is a member of the New York Craftsmen's Club. Just to indicate his potency with respect to the International Association, and to the New York Club in particular, we'll tell you about an event which occurred in November 1946. At the New York Club meeting held on November 21, 1946, the DeWitt A. Patterson Class consisting of 50 candidates were inducted into the Club. The class was named after and was inducted by DeWitt Patterson himself. Twenty of the candidates resided overseas but were inducted *in absentia*. Foreign legations of the countries represented by the International — Belgium, China, Czechoslovakia, Denmark, Egypt, England, France, Holland, Italy, Norway and Sweden—were invited to send representatives to attend the induction ceremonies. Through Craftsmen like DeWitt A. Patterson it can be understood that Craftsmanship is and should be international in scope.

DeWITT A. PATTERSON
Foreign Representative
(The World is His Craftsman Oyster)

EDW. H. CHRISTENSEN
Club Bulletin Service Chairman

JOHN R. DONOHUE
First District Representative

(The First District is comprised of the following clubs: Boston, Connecticut Valley, Merrimack Valley, New Haven District, Providence, Worcester County.)

JOHN R. DONOHUE, First District Representative of the International Association, was reticent with respect to supplying personal information about himself. So we'll state that he is Branch Manager, Boston, for Sinclair & Valentine Co., with which company he has been associated for 33 years. He's a round peg in a round hole—he likes sales work. Previously, he was a pressman traveling through New Jersey and New York. He is a member of the Boston Club and has served on its Board of Directors.

JOHN R. DONOHUE
First District Representative

ELMER BENNY
Second District Representative

(The Second District is composed of the following clubs: Adirondack, Albany, Newark, New York and Utica.)

FELLAHS, here's a guy with a varied career. The Second District's International Representative is Elmer Benny. He's Sales Engineer for Ideal Roller & Mfg. Co. in the New York area. Has been associated with Ideal for 16 years. The part of his profession he likes best is the sales and technical application of Ideal's products to various industries. He is a member of the New York Craftsmen's Club. A man like this must have a hobby—it's fishing. Now, we'll mention his business connections as he went along the highway. First, he was press agent for Barnum & Bailey's Circus; next, he was Business Manager for the Bayonne (N.J.) *Times*; in succession, he became salesman for such firms as E. W. Blatchford, the type metals people; F. Wesel Mfg. Co., who sponsor a varied line of platemaking products; then he became a salesman for Ludlow Typograph Co. (the equipment on which is produced the hand-composed, slug-cast product). But getting back to the roller business, Benny has been curious about and has developed roller innovations from time to time. At present, as is stated above, he likes to find applications *anywhere—in any industry*—for roller products.

ELMER BENNY
Second District Representative

WILBERT HAMILTON
Third District Representative

(The Third District is composed of the following clubs: Buffalo, Montreal, Ottawa, Rochester and Toronto.)

HERE'S another reason for International goodwill. He's among the noteworthy men like Fred Baillie, Vic Igglesden and other Ottawa Club Craftsmen. He is a charter member of the Ottawa Club, is a Past President, and is now serving the International as Third District Representative. He was chairman of the Typographic Clinic at the 1946 Montreal convention. After attending Ottawa public schools and Lisgar Collegiate, he served his apprenticeship as a hand compositor and worked for many years in Ottawa and Toronto printing plants. He entered the Canadian Government Printing Bureau in 1923. Here he served as hand compositor, Linotype operator and spent nine years in the production office. He was appointed General Foreman of Composition in 1940. He knows something about municipal politics, having served 15 years as alderman in Ottawa City Council, and as Chairman of the Industrial and Publicity Committee for three years. In World War I he served overseas with the 74th Battery, Canadian Field Artillery.

WILBERT HAMILTON
Third District Representative

C. R. (Mac) McCLURE
Fourth District Representative

(The Fourth District is composed of the following clubs: Baltimore, Lehigh Valley, Philadelphia, Richmond, Washington and York.)

A CONSTANT chap is C. R. (Mac) McClure, Fourth District Representative. He has spent 37 years in the Bureau of Engraving and Printing in Washington, D. C. He is Foreman in Charge of the Pressroom. During World War II he was government representative for a time in Boston on allied military currency printing. He was also active in production of all military currency during the war in Washington, D. C. He is a member of the Washington (D. C.) Club which he has served through the chairs to President. He has also been Financial Secretary. We feel a news item worth reporting in connection with McClure's duties as Fourth District Representative is that he has visited all six clubs in his district from two to five times during the past year. At the District Conference, Mayflower Hotel, Washington, D. C., held Saturday, May 10, McClure was unanimously recommended by a nominating committee to the International President for reappointment. Robert Pollack (Philadelphia) was recommended as deputy representative.

C. R. (Mac) McCLURE
Fourth District Representative

OLLIE G. FRICKE
Fifth District Representative

(The Fifth District is comprised of the following clubs: Indiana: Indianapolis; Kentucky: Louisville; Michigan: Detroit, Grand Rapids; Ohio: Cincinnati, Cleveland, Columbus, Dayton, Toledo; Western Pennsylvania: Pittsburgh.)

DON'T let his pokerface disturb you—he's very amiable and is a substantial person indeed. His record in Craftsmanship is outstanding. Ollie G. Fricke has given 26 years service to Craftsmanship. Ollie began his long stretch of service in October, 1921, by helping organize a Craftsman's Club in Dayton, Ohio. He served as its secretary for four years, and as its president. He has been Fifth District Representative

OLLIE G. FRICKE
Fifth District Representative

for 16 years. His district is the largest in the association in number of clubs—there are ten.

Mr. Fricke had a solid record of craftsmanship upon which to build. Beginning as an errand boy (in 1901) he spent several years with Reynolds & Reynolds Co. in Dayton, feeding Gordon and cylinder presses. Wanting a wider knowledge, he 'oined Western Printing & Publishing Co. as a cylinder pressman, later becoming assistant foreman.

In 1908 he was married. Several months later he left Dayton to move to Grand Rapids, Mich. to become pressroom foreman at Dickerson Brothers. A year later he was offered and accepted a position as night superintendent of Daterson Publishing Co. of Warren, Pa., publishers of *To-Day's Mag*. After several years in Warren he became associated with the Crowell Publishing Co., Springfield, O., where he was instructor in the operation of two-color presses.

After the flood in 1913 at Dayton he accepted a position as superintendent of printing at the Egry Register Co. and later became production manager of the United Brethern Publishing House, now the Otterbein Press.

During World War I he supervised the secret printing of the United States Government airplane manufacture, instructions, and equipment for their operations.

In 1924 he became branch manager for Sinclair & Valentine, opening a small branch in Dayton which has since grown to a large manufacturing plant making all type of printing and lithographic inks and lithographic chemicals. Several years ago he was made Vice President in charge of Chemical Manufacture.

Mr. Fricke has two sons and a son-in-law associated with him in the ink business. He has three grandchildren and is active in civic affairs. For the past 20 years he has been Chairman of the Board of Trustees of Memorial Presbyterian Church and Financial Chairman of the New Building Fund.

He has attended all International Conventions. He likes baseball and football, and is said to be a very capable poker player.

FIELDING A. UTZ
Sixth District Representative

(The Sixth District is composed of the following clubs: Chicago, Five County, Milwaukee-Racine, Peoria and Rock River Valley.)

SIXTH District Representative Fielding A. Utz is very well known in his neck o' the woods. He is President of the Milwaukee Printers Roller Co. and has been associated with that company for 30 years. His experience extends from

FIELDING A. UTZ
Sixth District Representative

printing machinery machinist to roller manufacturer. As is the case with so many executives associated with the Graphic Arts he likes best the selling end of the business. He is a member of the Milwaukee-Racine Club and has served that worthy group of Craftsmen as Entertainment Chairman. He answered with one word our question: "What hobbies do you have?" The answer is "Gardening."

JOE McCONNAUGHEY, jr.
Seventh District Representative

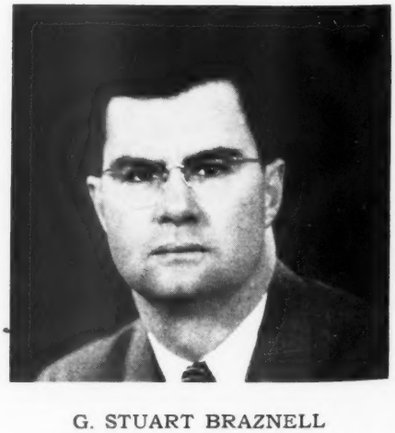
(The Seventh District is composed of the following clubs: Atlanta, Little Rock, Memphis, Miami and Nashville.)

UNTIL just recently, W. E. Neely, Resident Manager of the Atlanta office of Sam'l Bingham's Son Mfg. Co., was Seventh District Representative. He has been succeeded by Joe

JOE McCONNAUGHEY, jr.
Seventh District Representative

McConnaughey, jr., Harris - Seybold Co.'s Atlanta office Southeastern Sales Representative. We want to remark that perhaps McConnaughey will function in strictly up-to-the-minute tempo—he was an AAF pilot in the recent war for over three years. He was graduated from Virginia with the degree of B.S. His hobbies are photography and flying. He is a member of the Atlanta Club and has served the club as Entertainment Chairman and Co-Chairman of the Educational Committee.

(See Braznell sketch next page)



G. STUART BRAZNELL
Eighth District Representative

G. STUART BRAZNELL
Eighth District Representative

(The Eighth District is composed of the following clubs: Central Illinois, Des Moines, Kansas City, Omaha, St. Louis, Topeka, Waterloo and Wichita.)

THE Eighth District's Representative, G. Stuart Braznell is a specialist. He's a three-way specialist: (1) He's Secretary-Treasurer and General Manager of The Braznell Co., (2) He's Eighth District Representative, and (3) He likes golf and fishing. He hasn't told us anything about his qualifications in fishing and golfing, but his work with his company and as District Representative speaks for itself. While he's interested in sales work he is keenly alive to the necessity for research in industry; consequently, he is a Director in the National Printing Ink Research Institute. He's Educational Chairman of the St. Louis Craftsmen's Club. Holds membership in the Norwood Hills Country Club.

CHARLES B. WEIMER
Ninth District Representative

(The Ninth District is composed of the following clubs: Dallas, Fort Worth, Houston-Galveston and San Antonio—you guessed it: All in Texas.)

ANYONE who lives in Texas takes it for granted he must travel some distance in order to be neighborly. Consequently, Charles B. Weimer, Ninth District Representative, doesn't mind the

CHARLES B. WEIMER
Ninth District Representative

distance so long as he can function in his official capacity. Craftsman Weimer is Manager of the Printing Dept. of The Clegg Co. in San Antonio, Tex. He's a member of the San Antonio Club, he having served as a member of the Board of Governors. He has been with Clegg for 10 years which ought to make him a substantial citizen. He likes designing and selling. His practical shop experience ranges from apprentice to journeymen work in commercial and newspaper plants. He carries the degree of B.A. in one of Texas' schools of business administration. His hobbies are psychology and hunting. He is proud of the work produced by his firm. Says he: "We cater to quality and have won many awards for our work."

RONALD B. RENNY
Tenth District Representative

(The Tenth District is comprised of the following clubs: Portland, Seattle and Vancouver.)

PLANT Superintendent of The Craftsman Press, Inc., in Seattle, Wash., is Ronald B. Renny. His association with that concern extends over a 10 year period. He likes best the lithographic side

RONALD B. RENNY
Tenth District Representative

of the business. His Craftsmanship services include President of the Seattle Club in 1941 and First Vice President of the Pacific Society of Printing House Craftsmen. He is a Naval Reserve Flyer and a graduate of Naval Air Station in Corpus Christi, Tex., and N.A.S. in New Orleans. His hobbies? He likes flying and fishing.

FRANK B. YERBY
Eleventh District Representative

(The Eleventh District is composed of the following clubs: Honolulu (H.I.), Sacramento and San Francisco.)

HERE'S a short Thumbnail Sketch. It's about Frank B. Yerby, who represents the International's Eleventh District. First, Yerby was a sales representative for 20 years with Blake, Moffitt & Towne, San Francisco paper firm, and for 2½ years was with T. J. C. Co. in the same capacity. For the past five years he has been with the Seaboard Paper Co., San Francisco with which firm he holds the position of Manager. He has served his club as a member of the Board of Governors.

FRANK B. YERBY
Eleventh District Representative

H. F. (Bunny) EDMONDS
Twelfth District Representative

(The Twelfth District is composed of the following clubs: Citrus Belt, Los Angeles, Phoenix and Santa Barbara.)

WE HAVE pondered at length upon causes as to why a man who has been successful in one branch of the Graphic Arts enters into another branch, only to be successful in the second-choice profession. Here's one Craftsman who saturated himself with composing room techniques, then becomes associated with one of the largest photo-engraving firms on the West Coast. He's H. F. (Bunny) Edmonds, Secretary-Treasurer of the Mitchell & Herb Engraving Co. in Los Angeles, Calif. He has been with this firm the past seven years. Originally, Edmonds started work

H. F. (BUNNY) EDMONDS
Twelfth District Representative

when he was 11 years of age. Completed the ITU Course in Printing. He served his apprenticeship on the Salt Lake (Utah) *Telegram*. Later, he served as composing room foreman and then became mechanical superintendent. After a time he became production manager for a Los Angeles advertising agency. He was also Assistant Manager of Los Angeles branch of Intertype Corporation, and for a time served as Sales Representative for Mergenthaler Linotype Co. For 10 years he was Sales Director of a Los Angeles photo-engraving plant. Present preference in his profession is the color process department because of the progress that is being made in color reproduction. His record indicates he has done a lot of work for the Craftsmen's organization. He is a member of the Los Angeles and the Citrus Belt Clubs, has served the Los Angeles Club as Secretary-Treasurer, and is a Past President of the Pacific Society of Printing House Craftsmen.

HERBERT THRELFALL
Thirteenth District

(The Thirteenth District is comprised of the following clubs: Capetown, South Africa and Havana, Cuba.)

HERBERT THRELFALL
Thirteenth District

CRAFTSMAN THRELFALL is the indefatigable and efficient former Secretary of the International Association of Printing House Craftsmen.

IVER F. PETERSON
Fourteenth District Representative

(The Fourteenth District is comprised of the following clubs: Duluth-Superior, Minneapolis, St. Paul and Winnipeg.)

HERE'S a substantial Craftsman citizen. Iver F. Peterson, Fourteenth District Representative, was the first president (two terms) of the Duluth-Superior Club which was formed about 11 years ago. At the Stewart Taylor Co. in Duluth, Minn. he is Vice President and Production Manager. He has been associated with this firm for 30 years. His experience with that firm ranges from platen pressman, cylinder pressman, salesman to production manager. In his work, he likes planning and production operation best. Peterson disclaims any hobbies, but states he enjoys fishing, camping and gardening. He is a member of the Duluth Chamber of Commerce, Masonic Lodge, American Legion, and is an active member of the Baptist Church. His firm, primarily, is a letter-

IVER F. PETERSON
Fourteenth District Representative

press plant but recently made a start with offset-lith; the firm also caters to better grades of color printing. Like most Craftsmen, he is enamored with the smell of printing ink and the symphony produced by rolling presses.

CHARLES R. CONQUERGOOD
Historian

ONE of the outstanding figures in the International Association (even though he is physically slight in dimension) is Charles Richard Conquergood, the International's Historian. Seriousness of purpose and ability to get things done are his two outstanding characteristics. He's President of the Canada Printing Ink Co., Ltd., in Toronto (Ont.) Can. He served the Toronto Club as President for two terms and has served as International Convention Manager upon three occasions. He was one of the promoters of the Toronto Graphic Arts School and serves on the Advisory Committee. He has been a member of the Toronto Board of Education for eight years. While he likes best his vocation of ink maker, he exhibits a keen interest in the avocation of color photographer. It seems the latter is a natural inclination simply because ink making and color photography do have something in common. Craftsman Conquergood is one of the reasons for international amity sponsored by a number of distinguished Toronto Craftsmen per-

CHARLES R. CONQUERGOOD
Historian

sonalities, particularly among executives in the Graphic Arts Industries. Could anyone pay higher tribute to a worthy Craftsman?

Speeds Lockup On Platen Press

IN preparing the lockup for a platen press many printers will spend considerable time measuring and shifting the type form to get it in the center of the chase. John Irwin, printer with the R. H. Harr Printing Co., Knoxville, Tenn., saves time with a simple little kink.

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Triumvirate Operates Saratoga Craftsmen's Convention

These three Craftsmen with their committees have planned the 1947 Saratoga Springs Convention. All three are members of the Albany Club. From left to right, they are: Vic Van Audenhove, Co-Chairman and Past President of the Albany Club. Harry F. Shaughnessy, General Chairman and Past President of the Albany Club; Shaughnessy is Pressroom Supt., The Williams Press, Albany. Robert Bunn, Co-Chairman and President of the Albany Club.

Co-operation of composing room and advertising department with the newspaper advertiser

By GEORGE W. HOLLOWAY*

**Mechanical Superintendent, Elizabeth (N. J.) Daily Journal. Abstract of address delivered before New England Composing Room Executives' Association, Holyoke, Mass., May 1947.*

THE relationship of the composing room, the advertising department and the advertiser should be of deep concern to the staff of any paper. How best to cope with it and what procedure to follow are dependent upon many factors.

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Does the management of your paper consistently drive your advertising department for advertising lineage and also place the responsibility of production and cost in your department? Or does it take the viewpoint of as great amount of lineage as possible, but consistent with proper cost and production, which leaves an appreciable margin of profit on advertising? At the *Journal* the attitude of consistent volume has been taken but with a weather eye open for production cost and production problems. This policy has paid off in satisfactory revenue and most favorable composing room and advertising relations.

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Through consultations with the advertising director we have been able to point

(*Continued on Page 84*)

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when he was 11 years of age. Completed the ITU Course in Printing. He served his apprenticeship on the Salt Lake (Utah) *Telegram*. Later, he served as composing room foreman and then became mechanical superintendent. After a time he became production manager for a Los Angeles advertising agency. He was also Assistant Manager of Los Angeles branch of Intertype Corporation, and for a time served as Sales Representative for Mergenthaler Linotype Co. For 10 years he was Sales Director of a Los Angeles photo-engraving plant. Present preference in his profession is the color process department because of the progress that is being made in color reproduction. His record indicates he has done a lot of work for the Craftsmen's organization. He is a member of the Los Angeles and the Citrus Belt Clubs, has served the Los Angeles Club as Secretary-Treasurer, and is a Past President of the Pacific Society of Printing House Craftsmen.

HERBERT THRELFALL
Thirteenth District

(The Thirteenth District is comprised of the following clubs: Capetown, South Africa and Havana, Cuba.)

HERBERT THRELFALL
Thirteenth District

CRAFTSMAN THRELFALL is the indefatigable and efficient former Secretary of the International Association of Printing House Craftsmen.

IVER F. PETERSON
Fourteenth District Representative

(The Fourteenth District is comprised of the following clubs: Duluth-Superior, Minneapolis, St. Paul and Winnipeg.)

HERE'S a substantial Craftsman citizen. Iver F. Peterson, Fourteenth District Representative, was the first president (two terms) of the Duluth-Superior Club which was formed about 11 years ago. At the Stewart Taylor Co. in Duluth, Minn. he is Vice President and Production Manager. He has been associated with this firm for 30 years. His experience with that firm ranges from platen pressman, cylinder pressman, salesman to production manager. In his work, he likes planning and production operation best. Peterson disclaims any hobbies, but states he enjoys fishing, camping and gardening. He is a member of the Duluth Chamber of Commerce, Masonic Lodge, American Legion, and is an active member of the Baptist Church. His firm, primarily, is a letter-

IVER F. PETERSON
Fourteenth District Representative

press plant but recently made a start with offset-lith; the firm also caters to better grades of color printing. Like most Craftsmen, he is enamored with the smell of printing ink and the symphony produced by rolling presses.

CHARLES R. CONQUERGOOD
Historian

ONE of the outstanding figures in the International Association (even though he is physically slight in dimension) is Charles Richard Conquergood, the International's Historian. Seriousness of purpose and ability to get things done are his two outstanding characteristics. He's President of the Canada Printing Ink Co., Ltd., in Toronto (Ont.) Can. He served the Toronto Club as President for two terms and has served as International Convention Manager upon three occasions. He was one of the promoters of the Toronto Graphic Arts School and serves on the Advisory Committee. He has been a member of the Toronto Board of Education for eight years. While he likes best his vocation of ink maker, he exhibits a keen interest in the avocation of color photographer. It seems the latter is a natural inclination simply because ink making and color photography do have something in common. Craftsman Conquergood is one of the reasons for international amity sponsored by a number of distinguished Toronto Craftsmen per-

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sonalities, particularly among executives in the Graphic Arts Industries. Could anyone pay higher tribute to a worthy Craftsman?

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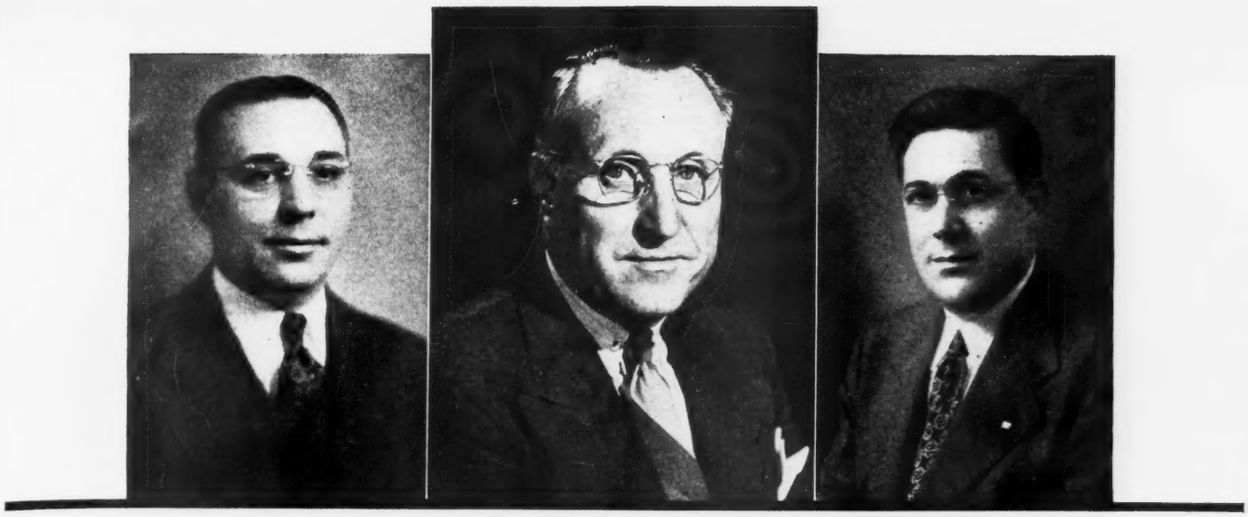

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Ozalid Products in the Graphic Arts

Modern photo-chemistry provides proving method for offset-lith and rotogravure — Transparencies produced for offset-lith deep-etch and albumin and rotogravure platemaking processes

BY STAFF WRITER

OZALID products were originally designed for use in the multiple print field to produce duplicate copies of engineering drawings, charts, photographs and the like—without use of processing solutions, by the two-step Ozalid method, incorporating exposure and dry development. Ozalid and Ozachrome are not exactly new to the Graphic Arts industries inasmuch as a number of firms employing one or more of the major printing processes have experimented with Ozachrome from time to time in color work. This is particularly true in the offset-lith and the rotogravure fields where it is desirable to prove the positive transparency in color work to enable the retouchers to perform color correcting operations, if necessary, before proceeding with the actual platemaking operation. A number of well-established firms are using both these products regularly. Ozalid is also used for reproduction proofs of type matter.

One rotogravure executive in whose plant the cross-line screen only is employed, is using Ozachrome for positive proving. He stated to the writer that it is not advanced as a fool-proof process because the results obtained from the positives are still largely dependent upon the human element. In other words, density still is density and color still is color. But the means of knowing in advance of the platemaking operation just how near the collective positives can be made to produce a set of plates which will print as faithfully as possible to the original copy is provided through the use of this product.

Manipulating Ozachrome positives for a color job might be compared to the correction work done by the photo-engraver, who after seeing a flat color proof, reetches locally or burnishes locally on a plate to improve its tonal quality. It might also be said to be the equivalent of offset-lith dot etching in which case the color artist reduces the diameter of the halftone dots in the screened positive for the same purpose.

Why Corrections?

When black and white copy is shot via the halftone screen, the tone values are distorted so that it is necessary to correct them. In color reproduction still other errors occur in the separate color transparency records. The photographer shoots the truest negatives and positives the technique permits. These are corrected by retouching artists.

Until recently, considerable corrections were made only on continuous-tone negatives or positives. Precision is difficult. In photo-lithography corrections must be made on a photographic transparency before the plate is made. To test or check these transparencies, proofs of small trial plates are pulled on an offset proof press. This is a slow and unsatisfactory operation.

The quality relation of proof to press production is more likely to be true to the original transparencies than hand proofs. The offset production press may pick up dots that do not show in the proof. Deep-etch plates are generally made with the dot fifteen or twenty per cent smaller than for proof plates to allow for this difference.

Fine Etching and Dot Etching

In photo-engraving, local correction may be done on the printing plate itself in the form of burnishing, fine etching, etc., and a press proof may be taken at any stage of correction to check tone value. The advantage of letterpress's fine etching was recognized by lithographers, who developed dot etching which resembles fine etching in principle and consists of retouching halftone transparencies, oftenest positives, in such a way that the size of the dot is diminished without loss of its printing density. The retoucher makes corrections on the transparency from which the plate is directly made and the platemaker can reproduce the values of this transparency. The negatives and positives should approach the final reproduction in value, tone range and contrast.

Ozachrome For Color Proofs

Ozachrome may be considered as four separate pieces of translucent film impregnated with dyes calibrated with camera filters and in two intensities. The first has been sensitized to produce a red color; the second, a blue; the third, a yellow; and the fourth, a black—the colors which the printing industry terms the primary (in practice) colors—red, blue, yellow, that is, and black, which is sometimes used for density or detail. In proper combination they can be made to produce any hue in the color spectrum. (Unlike Ozalid Intermediate foils such as Lithofoil, Ozachrome prints cannot be used as masters to produce subsequent prints).

The first step in any color printing process is to analyze the copy for red, yellow and blue content and then to isolate these primary colors by filtration, thereby obtaining a set of color separation records each representing one of the basic colors in the original. It is here that Ozachrome provides a much appreciated help, for in a few minutes the work done so far may be proved and examined before the plates are made.

Ozachrome is an Ozalid product of interest to Graphic Arts workers. It was designed primarily to allow the proving of color separation positives, in full color, before the printing plates are made. A film positive is made from each of the two, three, four or more negatives constituting the color transparency records of the copy and then each positive is printed on the Ozachrome film representing that particular color. When the three Ozachrome prints in yellow, red and blue respectively in a three-color process job are made, they are overlayed (superimposed) in register, when the tones and color values may be seen and any necessary corrections may be made on the transparencies from which the plates are still to be made while the production press continues running on an earlier assignment.

Only three basic Ozachrome colors (excluding the black, which gives body or additional density) are used. Each color is the equivalent, within the ability to match them, of the colors used in three-color printing: namely, yellow, blue-green (cyan) and red (magenta).

The ability to use Ozachrome for color proving is dependent on how closely the Ozachrome colors match the inks used in the printing. At the present time, the colors are not exactly matched. However, a relationship can be established

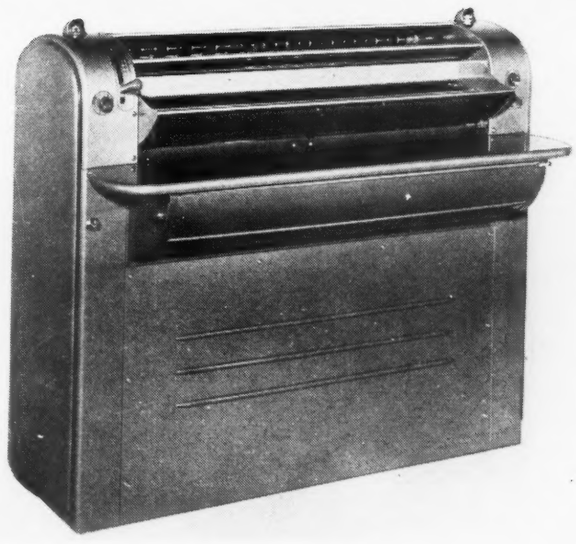


Fig. 1—View of Ozalid Streamliner. On this machine can be produced (for the purposes of the accompanying article) proofs of type matter and photographs on paper base material or color separation positives on a transparent sheet. This is strictly a contact process: If a positive is put into the machine, a positive print or transparency will be reproduced. In color work, each of the black, red, yellow and blue separations are reproduced in color on transparent material and are then mounted in register one on top of the other in correct order for comparison with original copy. A set of four-color positives may be produced in about 10 min. Width of the machine is 62 in.; height is 50⅛ in., and depth is 31 in.

and can be used as a guide in color proving, even though the match is not exact. One reason for the inability to match inks with the standard Ozachrome colors is that there is a variation in the inks used by the various printers. If everyone used the same inks, matching hues of Ozachrome could be made.

General Procedure In Proofing

Ozachrome has proved of great value as a proofing aid. The following procedure generally is used although no standard technique could be prescribed as applicable in all cases. After the positives are received from the camera or from contact printing, and a certain amount of adjustments and corrections are made as is customary in the photomechanical arts, a set of Ozachromes are made in four colors: red, blue, yellow (and black if desired) which are used as proofs. One or often two Ozachromes are printed, first yellow, then red, which enable the artist to use his best judgment in etching and correcting for blue. The third color is then printed and from the three color proof (overlay) the artist can determine what further corrections are necessary. When all colors are assembled and subsequent corrections made, the net result will be a proof very close to the original art. The Ozachrome proof shows where opaquing, retouching, staining or dot etching is needed.

Ozachrome Rotogravure Proofs

Until an Ozalid product called Ozachrome was originally designed to prove positives, screened or unscreened, in full color, there was no economical way to make rotogravure proofs. The old way was to etch the plate or cylinder and then hold up the production press while possible correction on the copper could be made. When this was impossible, the production press was held up until the retouchers could correct the positives.

Ozachrome Natural Color Prints

Besides its use in color proving, Ozachrome is used to produce advertising displays in full color for show windows and sales counters, color prints for sales booklets or personal use, composite overlays in different colors for insertion in instruction, sales or engineering manuals and other books.

Ozalid Lithofoil

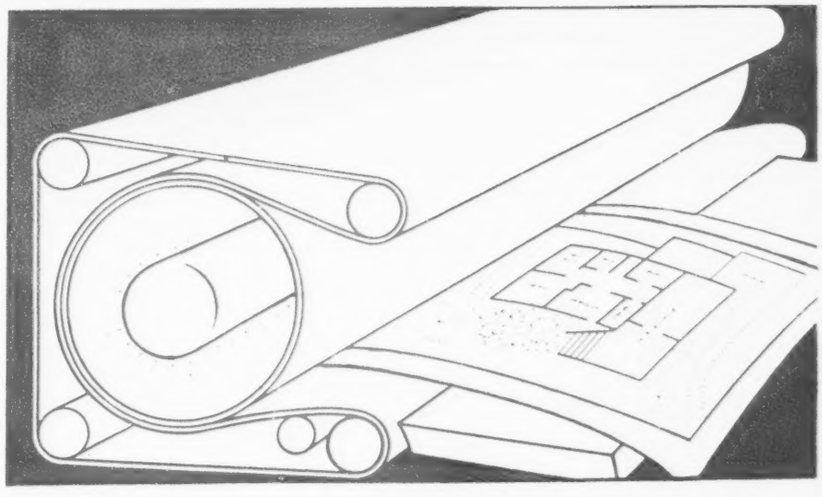
Ozalid Lithofoil was designed to increase the line densities of faintly drawn or worn tracings. By running such originals on Lithofoil an improved intermediate master is secured which will produce better prints than would be possible if working directly from the original. Furthermore, imperfections existing on the original and reproduced from it onto the Ozalid Lithofoil print, can be removed with Ozalid Corrector Fluid.

Any number of line or halftone prints may be made from Lithofoil when used as a master. Its chief value to lithographers is the high degree of actinic opacity and the absence of "pin holes" often found in other high contrast reproduction type films. Another advantage of Lithofoil is that it saves much time and expense in the making of positives. Duplicate positive or negative films may be made directly, eliminating the necessity of repeating negative to positive process. Lithofoil produces prints of high contrast and is intended principally for line work.

Ozalid products enable the offset-lithographer to obtain a true proof on a sensitized acetate sheet called Lithofoil. After corrections have been made on this proof, it is the final transparency from which the press plate is made in the deep-etch process.

Lithographers appreciate the dry development of Ozalid products (no water). Lithofoil can be used to make duplicate

Fig. 2—These diagrammatic illustrations show the operation of the Ozalid Streamliner machine for producing Ozalid and Ozachrome prints and color transparencies for "proving" the positives from which gravure (cross-line screen) and offset-lith plates are made. Assuming that a set of four-color positives is to be made, the black, red, yellow and blue positives are placed in the machine one at a time as shown in this Fig. 2 diagram. For instance, the positive for the red plate is placed directly upon and in contact with the Ozachrome transparent sheet which carries a sensitized coating of diazo salts and couplers. Both the color positive and the Ozachrome sheet are conveyed between a revolving transparent pyrex cylinder and rotating belt. In the cylinder is a high-pressure mercury vapor lamp. The ultraviolet light source reduces that part of the sensitized coating on the Ozachrome sheet which is unprotected by the image on the positive into an invisible compound.



positives and negatives which may be used to produce additional plates or to "multiply the form" to use a letterpress term. This method is reported to be so economical and satisfactory that on jobs consisting of images in groups and gangs, it is the custom to multiply the image with a number of Lithofoil duplicates rather than employ a photo-composing machine.

In the albumin process, contact negatives are made from the corrected positives.

Ozalid Is A Contact and Projection Process

As previously stated, Ozachrome prints may be made from both screened and unscreened positives. They are used to prove color separation transparencies in all divisions of the Graphic Arts.

Ozalid products are used as substitutes for silver prints and for line and halftone (contact) positives. The comparatively low sensitivity of these materials prevents their use in camera exposures. They are satisfactory for contact printing and projection. Anything drawn, typed, printed or photographed on translucent material can be reproduced quickly with Ozalid. If it's on opaque material, a film positive master can be prepared and subsequent prints made at a fraction of the cost if each succeeding print had to be made photographically.

Same Equipment Handles All Ozalid Products

It is an interesting note that all Ozalid prints—Ozachrome, Lithofoil Dry Photo and other varieties are produced in exactly the same manner, the two-step method incorporating Ozalid exposure and dry development, in the same equipment, with no special attachments.

Fig. 4—This illustration shows a group of three transparent cellulose acetate positives—one each for blue, red and yellow; they have been grouped in register. A black positive may also be added. This overlay represents a color proof such as would be taken upon enameled paper by the photo-engraver. To view the proof, the operator places a sheet of paper (preferably the same stock upon which the job is to be printed) under the bottom positive, or he can view the set as a transparency by placing it upon a lighted table top.

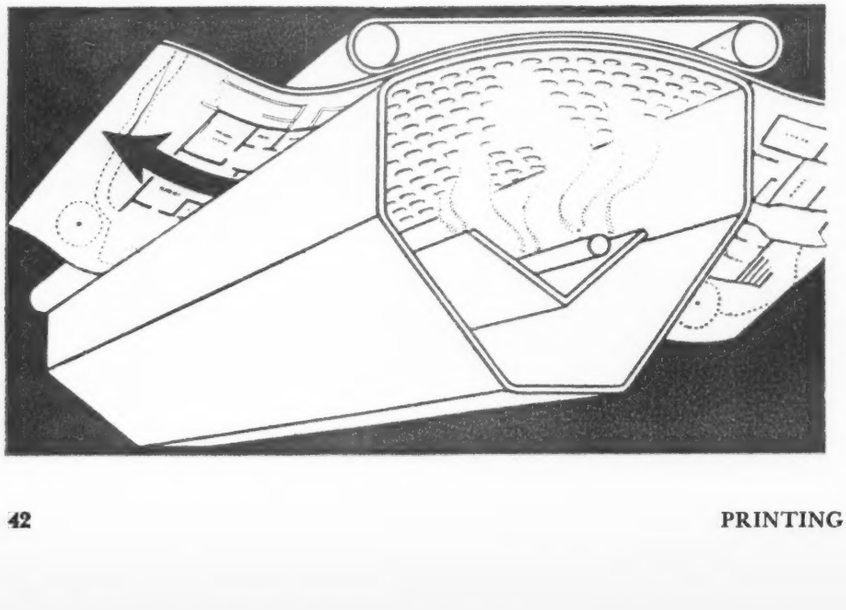
In this Fig. 4, the sheets are identified as follows: *1* is the blue positive; *2* is the red positive; *3* is the yellow positive, and *4* is the white sheet of paper upon which the collective positives have been superimposed in register.

An aid to scanning tone and color values is a blank sheet of an extremely glossy enameled coated paper like Champion Paper & Fiber Co.'s "Kromekote" or a sheet of glossy photoprinting papers, placed behind (underneath) the overlay.

The color arrangement of the Ozachrome prints (when mounted on white paper for display by reflected light or as a transparency) is in the following order: Blue (on top), red, then yellow. When a black print is used for "extra body," it is superimposed on top of the blue print. The prints are stapled after being registered with respect to each other.

The overlay from which this picture was taken measures 25 in. by 33 in.

Fig. 3—The next step in the production of an Ozachrome positive is dry development. After exposure as shown in Fig. 2, only the exact image of the original positive remains visible on the sensitized surface of the Ozachrome sheet. The Ozachrome sheet is now conveyed automatically across the perforated top of the developing tank where controlled aqua ammonia vapors rise and develop the sensitized image. The Ozachrome positive will have black, blue, red or yellow image according to which color the positive is representative. Upon ejection from the machine, the positive is ready for immediate use.



Ozalid Dry Photo Prints

In most cases, better halftone engravings can be made from Dry-photo prints than from regular photographic prints. The Dry photo (black) holds tonal values, actually opening up dark areas and gives softer and better defined images.

Production of masters used in making Dry-photo prints is a photographic step in a darkroom similar to regular photo-finishing by either contact or projection. Enlargements are made directly on the film by exactly the same procedure as in making enlargements on bromide paper. In projection, the negative should be placed emulsion side toward the light in the enlarger. The resulting master will then be turned the same way, right to left, as the negative and when this is printed with the emulsion side in contact with the sensitized side of the Dry-photo paper, prints of slightly better definition or sharpness will be obtained than if the picture had to be printed through the cellulose base of the master.

Brief History of Ozalid Products

Bichromates are generally considered to be the only photo-mechanical sensitisers. The only possible substitutes known are the diazo compounds, first used as sensitizers in the Primuline process of Green, Cross and Bevan about 1890. These compounds are classed as organic substances formed by the action of nitrous acid on aromatic amines, amidosulphonic and amidocarbonic acids.

Prior to the war, research had been pursued in Germany with the purpose of using diazo compounds as substitutes for bichromates in photo-mechanical coatings and in offset-lith platemaking with poly-vinyl alcohol as the vehicle. Since 1890 many American and European patents have been issued for sensitizing film, paper, textiles and other materials with diazo compounds. The Ozalid products are based on discoveries from 1917 to 1926, by Prof. Gustav Kogel of Karlsruhe, Germany.

Brief Summary of Ozalid Chemistry

When the original is placed on a piece of Ozalid film, it is ready to be run through the Ozalid printing machine, an improvement on the "printer" of the photo-finisher. All Ozalid film, paper, cloth and foil, is sensitized with a coating of (1) diazo salts and (2) couplers.

When the original and the Ozalid film pass around the printing cylinder, which contains a mercury vapor lamp, the light rays penetrate the original and strike all of the sensitized surface which is unprotected by the image on the original, and decompose it.

The light rays decompose it because diazo salts in the presence of water, which is actually present in sufficient quantity in the sensitized material, are changed into invisible compounds when exposed to light of the correct spectral composition.

After exposure, only an exact facsimile of the original is present, in weak yellow detail and the rest of the exposed area is now colorless.

When the Ozalid print is next conveyed across the top of the dry developing tank, heated ammonia vapors rise and contact the yellow facsimile, transforming it into a permanent dye image. The chemical explanation as to why the yellow facsimile becomes so transformed lies in the fact that diazo salts react with their couplers in the presence of an alkali (heated ammonia fumes) to form permanent dye images.

By the selection of the proper diazonium salt and coupler, practically any color of the rainbow can be formed.

The Reaction is Opposite To That of Photography

In photography, the greatest density results from prolonged exposure to the light. Conversely, shortened exposure will produce little or no density. Ozalid diazo salts react in just the opposite manner to the silver halide-gelatin combinations with which photographic papers are coated, since long exposure destroys the diazo salt and gives least density whereas short exposure does not affect the diazo salt to any extent and upon development maximum density is obtained.

In development, too, the Ozalid materials react in exactly the opposite manner again. They are developed dry, in seconds by ammonia vapors, whereas photo-finishing materials require the use of developing and fixing solutions, followed by washing and drying. Thus, owing to the dry development, Ozalid prints of all kinds are immediately ready for use.

Ozalid challenges the imagination of the users of conventional types of reproduction. The introduction of new products and new techniques will be limited only by the exercise of this imagination

SUMMARY

IN conclusion, principal advantages of Ozalid products in proving and platemaking stand out as follows: (1) Prints are obtained in a matter of seconds; (2) The entire process can be carried out under ordinary room lighting conditions (no darkroom); (3) True-to-scale or dimensionally stable prints because water is not used in developing, thus assuring retention of the original scale of copy and allowing the use of the final prints for all applications where true-to-scale and dimensionally stable prints are required. Reproduction of color separation originals, reproduction of original in photolithography and economical and exact multiplication of original, (avoiding the variation in prints in the photocomposing machine encountered when the step-and-repeat must be delayed), reproduction of templates, instrument scales and isometric drawings; (4) Ability to increase the line density of original copy and secure an improved negative or positive transparency; (5) Ability to remove imperfections existing in copy from their reproduction on the positive or negative with Ozalid corrector fluid; (6) Prints via Ozalid are immediately ready after making for use; (7) Freedom from "pin holes".

Ink Firm Incorporates

Cleveland Printing Ink Co., Inc., recently incorporated and elected officers. Martin Meixner has been elected president and treasurer of the firm. Earl U. Clawson, formerly president of Cleveland Printing Ink Co., has been named vice president. John T. Mihalus, ink maker with 17 years' diversified experience has been elected to the office of secretary with additional duties as plant superintendent. Michael Brophy, ink technician, will divide his time between assisting Mr. Mihalus in the plant and selling. Alfred E. Meixner is office manager. A program of expansion and modernization is already under way.

25th Anniversary

The latest issue of *The Linotype News* marks the twenty-fifth anniversary of that publication. John E. Allen had been editor of the *News* from its beginning.

ANPA Research Director

President David W. Howe, American Newspaper Publishers Assoc., announced appointment of C. M. Flint as Research Director for the ANPA research program. Flint is a University of Maine graduate in electrical engineering. After graduation Mr. Flint joined the General Electric Co. He takes office September 2. Further details of the ANPA research program will be announced.

Electronics Theme Dominates Insert

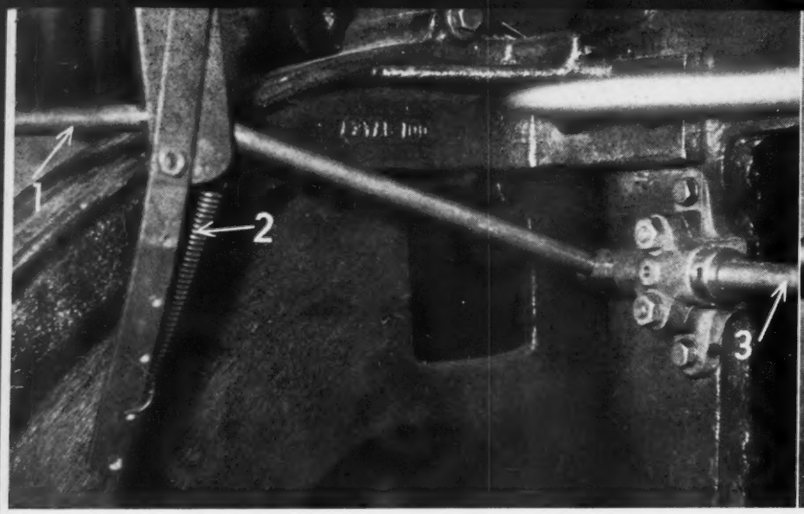
The attention of readers of *Printing Equipment Engineer* is called to The Sperry Corporation's insert between pages 16 and 17 in this issue. Electronics, the theme of the advertisement for Sperry Printers, is discussed together with appropriate symbolism. An outline diagram of the Sperry Gravure Printer is indicative of that company's new press which prints four colors with unwind and rewind stands. While it is not stated in the insert just how electronics will be applied to Sperry equipment, it would seem that the drive, color register control and fabricating operations will function through electronic equipment.

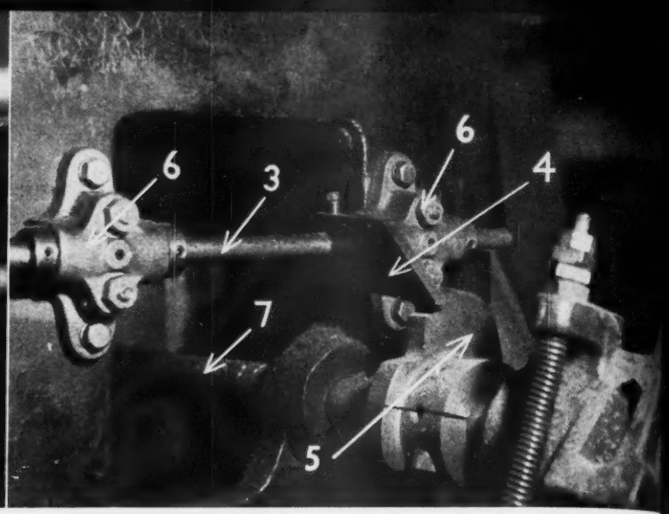
Manual of Craftsmanship

The newly revised edition of *The Manual of Craftsmanship* published by the International Association of Printing House Craftsmen has been completed. The revision was undertaken by the Manual Committee under the chairmanship of Ex-Intl. President Walter F. Schultz, chairman, Dallas, Tex.; August Hausher, St. Louis, Mo., and John A. Waryn, Newark, N. J., Club. The booklet consists of 64 pages and cover, 4½ in. by 6 in. The booklet contains a foreword by Intl. President W. H. Griffin. This new 1947 revised edition of the *Manual* contains considerable information for the guidance of local club officers and members in the conduct and operation of clubs. The Committee is to be complimented upon its work in presenting the information in clear-cut manner. Chairman Schultz states: "It may be considered that the ideas and policies expressed in this booklet reflect official viewpoints and may be accepted as a reliable interpretation of the International Constitution and By-Laws and the authorized procedures of the organization."

Heads New Division

The Service Bindery Co., Inc., 360 East Grand Ave., Chicago 10, announces the formation of the Service Mounting and Finishing Div. of that firm, which will be under the guidance of Jack Singer, formerly of Boyer Cardboard & Mfg. Co. and Precision Mounting Co. This division will specialize in mounting, die cutting, lining, laminating and printer finishing.





A device applied to a paper cutter in the plant of the Leaf Chronicle Co., Clarksville, Tenn., makes it necessary for the cutter operator to use both hands before he can set the machine in motion. The device was developed by Frank Buck, pressroom superintendent. Mounted at the left side of the cutter just below the cutting table is a rod *1* which extends to shaft *3*. The shaft *3* passes through the cutter frame and terminates in a pawl or dog *4* just above the notched collar clutch *5*. The spring *2* pulls lever handle *1* down after operator releases it. It will be seen that before the operator can throw the clutch into operation to cut paper, he must pull up on lever *1* with one hand so pawl *4* will clear notch in clutch collar *5* while throwing the cutter operating clutch into engagement with the other hand. Thus, both of the operator's hands are busily engaged in putting the machine into action and prevent him from placing his free hand under the descending knife.

Safety Device For Cutting Machines

MANY a worker has lost a finger or two, may be more, on cutting machines because he had his left hand free and thoughtlessly put it in the wrong place. Frank Buck, superintendent of the pressroom of the Leaf Chronicle Co., Clarksville, Tenn., decided nothing like this would happen to anyone in the pressroom in his charge so he devised a homemade safety device that makes it considerably less possible for a worker to meet with an accident.

The effect of the device is that it is necessary for a man to use both hands to put the cutter in operation and with both hands in use to operate the machine, danger of accidents is diminished.

The controlling factor is an offset collar on the clutch shaft containing a ratchet notch with accompanying pawl (dog), fastened on a rod paralleling the front of the cutter and turning in two brackets at the end. The pawl and ratchet when engaged prevent the clutch from being thrown in and a handle fastened to the opposite end of the shaft, when raised, throws the pawl out of the notch of the ratchet. Only then can the clutch be moved to put the cutter in operation. After the knife ascends from the cut, a spring automatically draws the handle back again into safety position, when the dog again engages the ratchet notch on the offset collar on the clutch shaft, thus securing the clutch.

The left-hand illustration shows the handle *1* which turns the rod *3* and disengages the pawl *4* from collar *5* at other end of the rod. Also may be seen the spring *2* which automatically pulls the rod *3* back so that the pawl *4* is locked in collar *5*.

The right-hand illustration shows two brackets *6* or pawl *4* (with dog between them) bolted to frame of cutter in which one end of the long rod or shaft *3* turns and also the notched collar (ratchet) *5* on clutch shaft.

The illustrations show the homemade safety device applied on a Seybold cutting machine. With modifications it may be applied on other makes of cutting machines.

FLEXIBILITY

in handling paper roll stock by electric truck

By GEORGE E. KENT*

**Materials Handling Engineer, Elwell-Parker Electric Co., Boston.*

FOR speed in converting semi-finished material into products ready for delivery to ultimate consumers few machines equal the modern newspaper printing press. A roll of paper weighing 1600 lbs., the equivalent in weight of 6400 24-page newspapers, is printed and off the press in 15 to 20 min. The tonnages of paper thus used, weight and bulk of the rolls and the many times they must be moved even before they are finally placed on the presses, makes this feature of newspaper publishing an important job from the standpoint of materials handling.

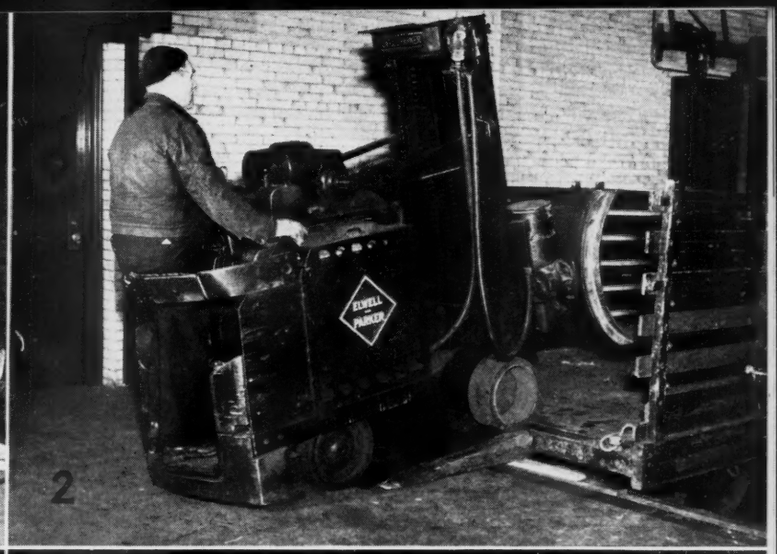
Factories growing up with similar problems relating to processing and fabricating immense tonnages of raw or semi-finished materials may move from congested areas to suburban districts for more space in which to maneuver. But newspaper printing plants must remain near the centers of circulations, and with the majority of metropolitan dailies space is at a premium.

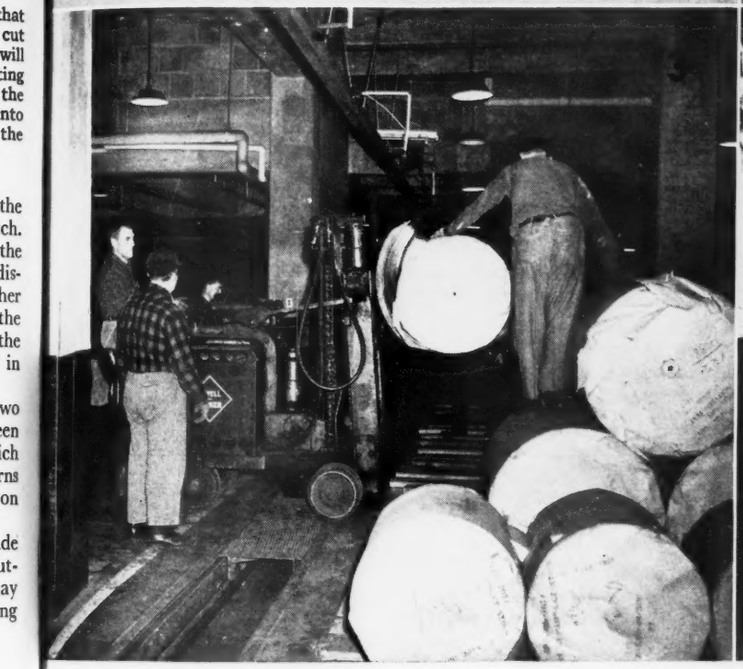
Therefore, while the making of the American newspaper may appear highly dramatic, for the men in the pressrooms the constant movement of ponderous rolls of paper means nothing but toil and sweat. And, like nearly all jobs which are performed mainly with muscle instead of mechanical power, this is uneconomical from the publisher's viewpoint.

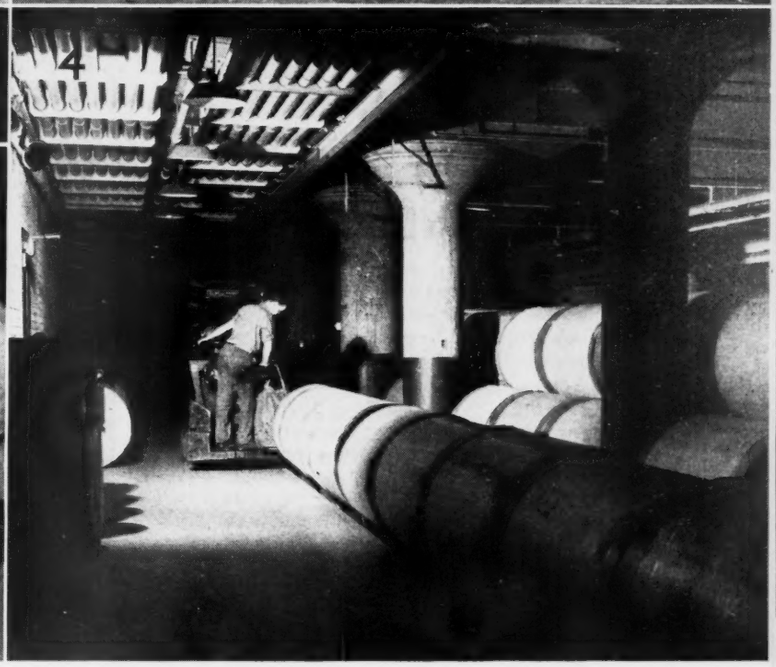
Consider the job: The standard size roll of newsprint weighing 1600 lbs., referred to previously, is 65½ in. long, 36 in. diam. Many rolls, of course, are lighter and others are heavier, and because of differences in sizes and weights the number of rolls used in printing newspapers varies considerably.

On the basis of 4 oz. of paper for a 24-page newspaper, however, the total weight of paper becomes apparent. It is something over 12 net T. per 100,000 papers printed. Weight of the paper itself and wastage in handling and printing are factors which would affect the calculation.

From freight car to printing press the rolls are handled no less than five times, so that the 12 T. in the example just cited must be multiplied by 5 to arrive at the minimum total weight of "the load" for every 100,000 papers printed. Actually, one metropolitan daily with a circulation of approximately 300,000 is







The Christian Science Monitor, Boston, is one of the many newspaper establishments which have eliminated difficult manual work while facilitating the movement of paper and other materials. The accompanying illustrations show an interesting sequence of The *Monitor's* newsprint roll-handling operations. The *Monitor* has found it more economical and satisfactory to do the work of unloading a freight car with a power truck than to have the work done by cartage companies, mainly because it can apply its own methods and supervise the work to tie in with its general operations.

At the base of the semi-circular steel apron which forms the cradle for carrying the roll is a beveled-edged plate. The truck is moved forward by the operator and at the same time the plate is pushed under the roll when it is in vertical position. Load is lifted off the floor by tilting backward the vertical column mounted on the forward end of the truck. The operator merely manipulates levers on the control panel to accomplish all motions and objects of the truck.

Fig. 1. shows the truck with a roll on the cradle coming out of a freight car. Operator can rotate the load 90 deg. from vertical or horizontal, or reverse. He can do this while the truck is traveling forward, or backward, preparatory to depositing the load. The roll may be carried on this rotating cradle in any position to facilitate passage through narrow aisles and doorways.

Fig. 2. With all the paper moved from freight car to printing plant the power truck itself goes aboard the road truck and is transported to the plant where it resumes its work in storing paper.

Fig. 3. Truck has picked up rolls at the receiving dock and is now bringing them into storage room. Steel bridge plate over dolly tracks permits truck to cross and to fill all available areas.

Fig. 4. Truck has picked rolls from horizontal position and loaded them onto dollies. Horizontal pickup is effected by pushing the forward edge of the apron under the roll and inclining the upward column backward. Truck is now being used as a tractor, the operator in this instance pushing the train of loaded dollies to the pressroom. Rolls are here shown double tiered but they may be tiered three and four high. Roll handling trucks are built with capacities best suited for the size and weight of the rolls to be handled.

known to have a load factor of 312 net T. daily.

Repetitions in handling the delayed actions ran up the expense, so that while a routine of a combination of manual and semi-mechanical methods is well established in most newspaper printing plants, the cost generally is far greater than if the movement could be entirely mechanized.

Here are some of the essential steps noted in typical instances: Rolls are taken out of freight cars and placed in road trucks; out of road trucks into printing plants; into storage; out of storage to entrance of pressroom; movement to presses; loading onto presses.

Rolls shipped in freight cars generally are in vertical position. The job of removing them and transporting them to the newspaper plant often is performed by a cartage company having large road trucks and crews of men. It takes at least two men to tip the rolls over from vertical to horizontal position so that they may be rolled from freight car onto the road truck.

At the newspaper plant the rolls are either slid sideways down a chute to basement pressroom or storage, or are

rolled off the truck onto an elevator. The elevator lowers them to the basement or raises them to an upper floor, depending on where presses and storage rooms are located.

The paper is rolled off low receiving platforms onto small dollies and are pushed toward pressroom or storage. Dollies travel on narrow gauge tracks which lead into the pressroom and to overhead tackle forming part of the press loading equipment.

Always taking advantage of the fact that nothing rolls so easily as a roll—unless it be a ball-bearing—the experienced crew starts the roll arolling and then checks its momentum with thick pads of burlap and 2 in. by 4 in. scantlings the length of baseball bats.

In storage areas where every foot of space is valuable "the muscle crew" can store only one layer of rolls, that is on the floor, unless provided with some mechanical lifting device. The amount of labor required, preparation and time taken, and physical hazards increase tremendously when heavy rolls are tiered manually or with inadequate mechanical facilities. Time and delays do not affect the loading of the presses and printing of the papers—as the crew when necessary will always turn to that job. They chiefly compound costs by requiring the application of an inordinate amount of labor to do a job that a machine can do in a fraction of the time.

For an example of what this adds up to: In the plant of a daily newspaper reporting a daily average circulation of 265,000, eleven men are engaged solely in handling rolls of paper from the time the rolls are received to when they are placed on the presses. The plant has no mechanical handling facilities except an elevator and the lifting tackle at the presses.

The foreman of this plant refers to the work of maneuvering the rolls as "backbreaking". He says the damage to paper resulting from manual handling is "very considerable". He states he knows by observation and experience a power truck with one man, the operator, and a helper, could do all the work required of the 11 men, in less time and less damage to paper. Then why not a truck? The place is "too confined"; too little space in which to move around in—the men must make up for this; some paper stored upstairs, some in the basement; some crowding the entrance of the pressroom.

This represents a typical victim of circumstance; the paper grew up in congested quarters, and except for cramped space in mechanical departments it is ideally located from the standpoint of business contacts and circulation. But, the labor cost of handling its paper is so high that the company is considering remodeling some of its facilities, to the extent that is possible, in order to take advantage of modern mechanical equipment—namely power trucks.

In contrast to this, many metropolitan dailies have co-ordinated equipment so that manual labor has been reduced to all but the vanishing point and nowhere imposes a dangerous strain on workmen. In such instances one man with a power truck equipped with a roll-handling device unloads a carload of paper in 1 hr. or less. The same truck at work in the printing plant does the work of five to ten men. It tiers rolls of paper three and four high, thus utilizing overhead storage space. In one case where manual handling was the practice for many years the storage area held only 210 T. of paper and 8 to 10 men were required to do the stacking. Now the operator of a roll handler with one assistant stores 620 T. in the same floor area, in less time and more safely than heretofore.

Keyboard Gadgets*

A PATENT is held by our Monotype keyboard foreman on a keyboard controller ribbon duplicator. This portable device snaps into place on the keyboard tower above the regular roll without nuts, bolts, or screws. Its use enables the operator to punch the two identical ribbons at the same time and in the same operation. Its advantage is 100 percent increase in keyboard production for certain classes of work, such as heads that repeat, tailpieces, folio lines, stock galleys of leaders, dash or quad lines. The Office's mechanical division has built 6 of the duplicators which are interchangeable on all machines. At times all of them are in use at once and several thousand repeat jobs have passed through this device in the past 15 months. The long pin on which the winding spool turns has been replaced with a thumb-plate spool release.

We have developed a number of other minor gadgets which have helped along our keyboard production. I might say that anything which boosts production is sorely needed, for we are still quite short of operators.

*From address delivered by Hon. A. E. Giegengack, United States Public Printer, Washington, D. C., before Philadelphia Club of Printing House Craftsmen.

Up-to-Date is plant of Highland Park (Mich.) plant — Building and modernization program enables firm to print forty newspaper-type publications

By BARBARA J. BORSOS

THE dream of the three young owners of the Highland Park (Mich.) *Highland Parker* was realized recently when copies of Highland Park's only weekly paper began rolling off the two high speed Duplex Tubular presses which were installed as part of an extensive expansion program. The three owners formerly carried the *Parker* from house to house as schoolboys, little realizing then that they would some day own the publication. They are Floyd R. Mantz, president; John P. Parks, editor and advertising manager, and Lorne Preeter, business manager.

Within the last 30 years, the paper has grown from a weekly publication with a circulation of 5000, into three papers, the *Highland Parker*, the Ferndale *Times* and the North-End *News*, with a combined circulation of nearly 30,000.

From a single office with three employees and a few carriers, the *Parker* has expanded until today it boasts a total of 50 employees and 150 carriers. The home of the growing concern is Highland Park, a suburb of Detroit. The city has a population of 52,000. The late Arthur L. Kingsley founded the paper in 1919.

The 20-page weekly has its own staff photographer, and averages 15 to 20 cuts per issue. It has a definite hometown slant and also carries weekly columns written by a New York and by a Washington correspondent. The *Parker* is a member of the Audit Bureau of Circulation.

One of the oldest community newspapers in the metropolitan area of Detroit, the *Parker* was instrumental in forming the Accredited Community Newspapers, an organization of estab-

Enlarged Research Program

AN enlarged program of research on improvements in electrotype manufacture is being planned by Printing Plates Research, Inc. The largest research appropriations in the organization's history have been made, and research in progress at Battelle Institute, Columbus, Ohio, will be intensified.

The expanded research program was authorized by the membership of Printing Plates Research, Inc., during its Seventh Annual Meeting in Columbus, July 21 and 22. This meeting marked the completion of a period of research activity at Battelle extending for more than six years. The new program will be embraced in a three-year contract with Battelle.

At the annual election of officers, held during the Columbus meeting, Joseph Schwartz, Wescott and Thomson, Inc., Philadelphia, was re-elected president of Printing Plates Research, Inc. Also re-elected were R. R. Myers, Capital City Printing Plate Company, Des Moines, Iowa, first vice president; Sam Ross McElreath, Sam Ross McElreath Company, Dallas, Texas, second vice president; and J. Homer Winkler, Battelle Institute, secretary-treasurer. Elected to the Board of Trustees were Dennis F. Hoynes, Central Electrotype Company, Cleveland; Ray F. Kreber, Van Bolt-Kreber Electrotype Company, Columbus; Arthur W. McGrath, Century Electrotype Company, Chicago; and George C. Scott, New England Electrotype Company, Boston.

Printing Plates Research, Inc., is a nonprofit organization of nineteen electrotype manufacturing firms of the United States and Canada. Its work at Battelle has resulted in several important developments in printing plate manufacture, the best known being the plastic electrotype molding process, known commercially as the PPR molding process.

Unveils L. A. Plant

Monsen-Los Angeles, new West Coast branch of the 60-year-old Monsen-Chicago type house, began operation in the California center on August 1. Under the direction of Ray Leo, Monsen-Los Angeles is staffed and equipped along the identical of the ultra-modern parent plant in Chicago.

Operating with completely new equipment, and on a 24 hour, 'round the clock basis, Monsen-Los Angeles will function independently in all phases of the type field. The company has mailed announcements inviting inspection of its new industrially-designed layout. The new West Coast plant is located in Los Angeles, at 928 South Figueroa St.

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lished publications, designed to promote high standards and better ethics in the newspaper business.

In 1936, the publication expanded to include a composing room and one linotype, and in 1939, in the quarters on West Davison Ave., two more machines were added. Following Kingsley's death in 1937, the paper was purchased by its present owners.

The *Highland Parker* moved to its present location, at 30 Bartlett Ave., in 1941, where for the first time in the newspaper's history, it had its own building, new and modern in every way. The two-story building, then 40 ft. by 140 ft., has its business offices in the front part of the building, for the convenience of customers, as well as circulation office, and complete photographic dark room. The second floor houses the editorial and display advertising staffs.

Prints 40 Publications

Considered the largest and most modern community newspaper publishing plant in Michigan, the *Parker* prints over 40 publications, which include weeklies, monthlies and bi-monthlies, which are church, labor and community newspapers, and also prints circulars.

General Manager of the shop, Oscar Wagner, joined the staff in 1945, to become plant manager and to manage the expansion program. The modern addition, which is now nearing its completion, is 37 ft. by 156 ft., and the enlargement has doubled the plant's floor space. The addition was expressly designed for pressroom, stereotype department and paper storage.

John Dobie, Composing Room Superintendent, was with the *Parker* from 1937 until 1943, and in March of 1946, after 26 months with the armed forces, began his work as head of the shop. The plant has five line-composing machines, two Ludlows and one Elrod. The shop has an up-to-date selection of type faces.

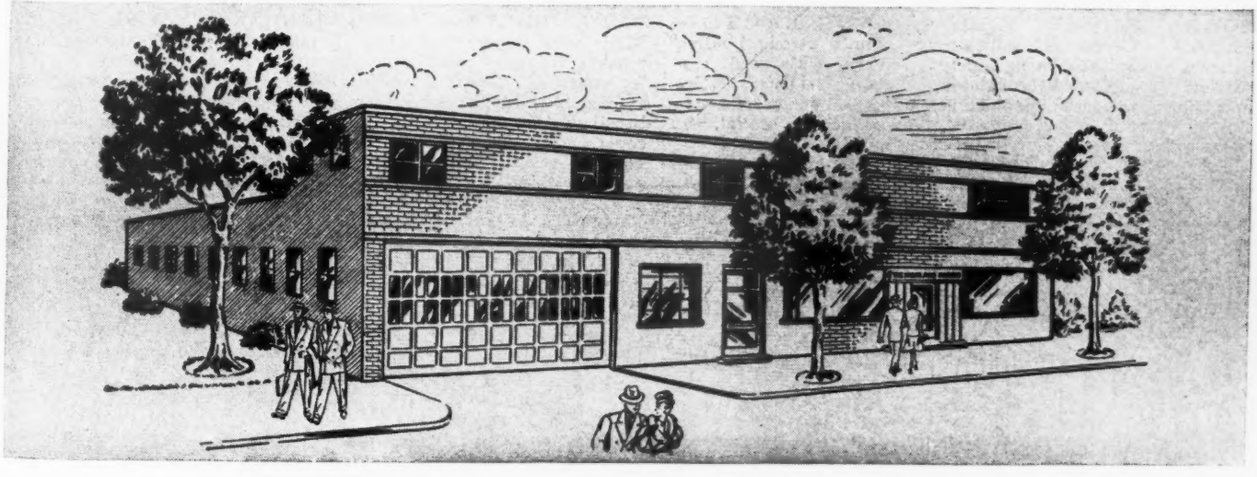
Modern Additions

A modern stereotyping department has been added, and is complete with the latest equipment. Ralph Newman, who has been with the *Parker* for over three years, heads this department. Other additions include a loading and shipping dock, storage space for four carloads of paper and additional offices for the editorial and advertising staffs. There is also a large new office for the circulation department, which Russell Lux heads. Walter Belz heads the mailing room.

The two Duplex Tubular presses have a combined capacity of 32 pages, producing 30,000 copies per hour, and handle color work as well as black and white printing. Thomas Beumer is Superintendent of the Pressroom.

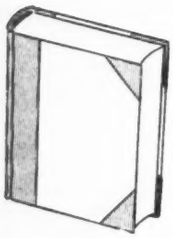
Other additions are a ventilating system, redecorating, the newest type of fluorescent lighting throughout the building, and locker and shower rooms. The building is of cement block, with Indiana limestone front.

The plant of the Highland Park (Mich.) *Highland Parker* is built of cement block with Indiana limestone front. A new addition is now nearing completion; ground area is 37 ft. by 156 ft.; older portion of the plant is 40 ft. by 140 ft. The addition is designed for use of stereo, press and storage departments. Two Duplex Tubular high-speed presses were installed as part of an extensive modernization program.

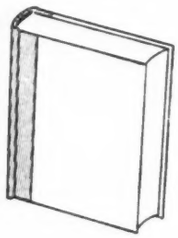


Bindings . . .

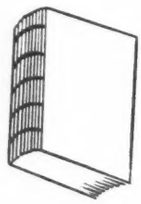
Identifications of a number of bindings suitable for various types of work. These illustrations are reproduced here by joint permission of Merchandising Factors, Inc. the producers, and Petrequin Paper Co. The illustrations appeared in one of a series of sales promotion bulletins published by Merchandising Factors, Inc. Petrequin Paper Co. is a subscriber to the *Catalog of Things to Come*. Legend: M means Metal; P means Plastic; C means Color.



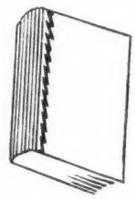
HALF - BOUND — Book with leather covering ¼ of board width. Leather corners have diagonal measurements ¼ of board width.



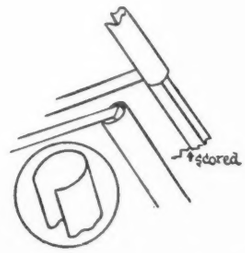
QUARTER - BOUND —Book with leather covering ⅛ of the boards. No leather corners.



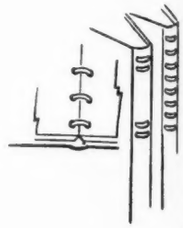
SEWED BOOK—Permanent books usually sewn by hand or machine, through folds of sections, often with tape back. Covers usually pasted on.



SIDE SEWED BOOK —The thread in a side-sewed book is stitched into the side of leaf instead of fold. For binding single leaves.

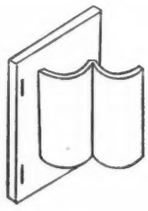


SPRING TUBE — M —Spring-metal open-side tube slides over metal track outside cover, thus firmly clamping pages. Natural tension of tube conforms to thickness.

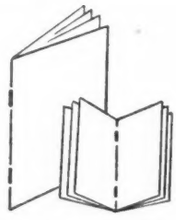


GEE GEE TWIN LOOP — M — Wire. Double or single loop. Concealed or semi-concealed. Entire process done by machinery.

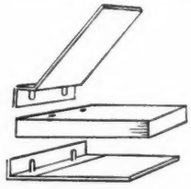
SIDE WIRE, (2) DOUBLE COVER — Another version of this binding, with cover cuffs pasted down, and flyleaves pasted over them.



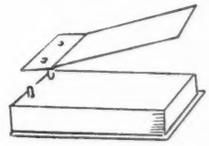
SIDE WIRE—Wires go through entire thickness of booklet. Will not open flat. For bulky booklets or those containing separate leaves.



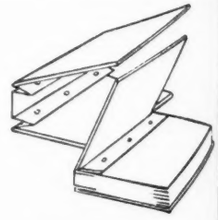
SADDLE - WIRE — Wires machine - inserted through center fold. Booklet must be gathered as one section in multiples of 4 pages. Not advisable for bulky books.



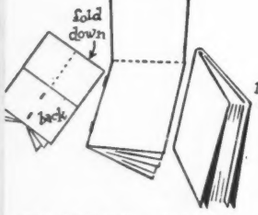
ANGLE BACK—L-shaped metals, front and back cover, contain binding posts permitting expansion. Locking device holds covers in position.



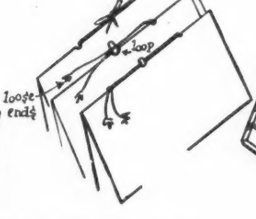
POST BINDER — Posts attached to back cover. Front cover pressed down over binding posts and locked. Section posts permit expansion.



TONGUE BINDER —One piece of stock is scored in 6 places to make cover fit contents. Punch round holes, fasten with binding screws, paper staples, etc.



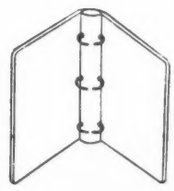
FRENCH-FOLD WIRE — French fold cover before being saddle - wire stitched to booklet. Unfold before stitching. Folding extra cover down hides stitches.



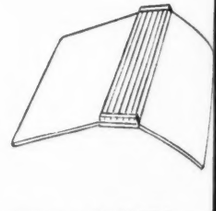
SADDLE - TIED — Center-fold punching. Suitable lacing knotted or passed through loop to fasten. Booklet lies flat.

SIDE-LACED — Fancy strong binding laced with cord, ribbon, leather. Holes drilled for correct size of lacing material.

EASEL BINDER — Made with cover extension forming base for use as display. Helped by mechanical binding permitting cover to turn back to back.

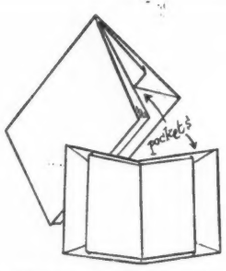


RING BINDER — Most popular loose-leaf binding. Rings open, close by spring or lever action. Metal back attached to cover.



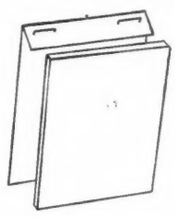
WIRE COVERS — Popular for magazines, directories. Wires in binding edge inserted between pages. Multiple wires hold many pamphlets in one cover.

DISPLAY BINDER —Special easel on backbone of ring book or other stiff-cover book. Permits standing up as display.

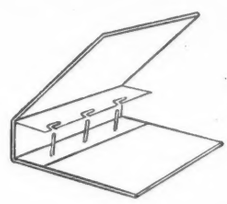


SLIP COVER — For extra protection or advertising use. Made by folding ends of single piece of cover material to form pockets.

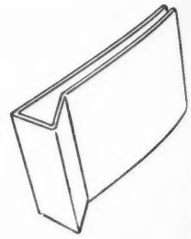
ALBUM STYLE — Covers are usually scored or hinged to permit easy opening. Bound with laces, binding screws, or paper fasteners.



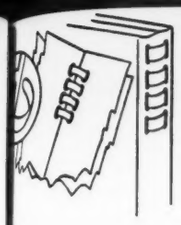
MANUSCRIPT COVER — An economical, quick method of stitching several sheets within a cover to be folded. For bids, proposals, etc.



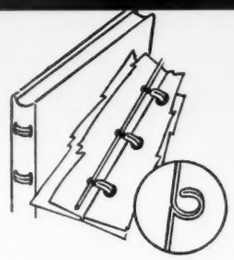
METAL LOCK — Top bar arranged to lock top of posts when in position. Sheets changed from top.



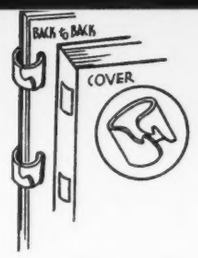
SPRING BACK — Spring in back so placed it opens book when front cover completely forced back. Insert sheets and release cover, firmly holding sheets.



ERCLA — MC — ries of smooth-edged, metal rings con- ted by hidden metal ckbone. Permanent loose-leaf.

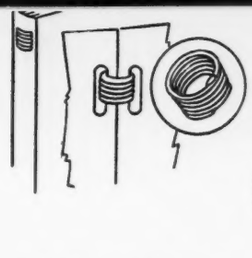


ALIGN-O — M — Double ring-like wire, wide-spaced to allow title on backbone. Metal finishes, positive alignment.

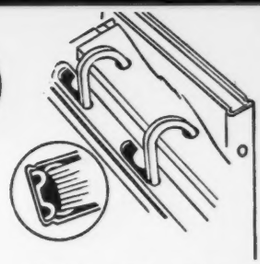


TAUBER-TUBE — PC—Individual rings, perfect alignment. Two or more per book. Open or semi-concealed binding.

TAUBER-TWIST — PC—Coils spaced any width. Twist lock at ends prevents twist from unwinding out of book.

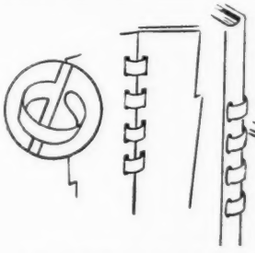


TAUBER MULTI - RING — PC — Individual coils with tight spiral. Used in slot hole. Pages lie flat in alignment.

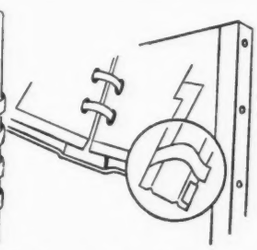


TALLY - HO — M — Permanent or loose-leaf. Series of rings hinged to metal back, lock, unlock as pages are pulled up, down.

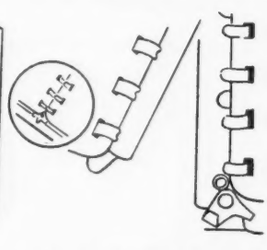
AUBER ROYAL ING — PC — Rings read apart, individu- y insert in round nched holes. No achine necessary.



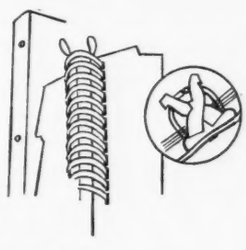
CERLOX—PC—Flat rings connected by thin backbone hidden beneath back cover. Permanent or loose-leaf.



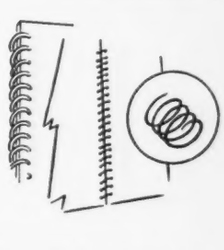
LIMITED — MC — Series of flat half-rings connected by flat, rigid backbone fastened to cover. Permanent or loose-leaf.



SWING-O-RING—M —Loose-leaf multiple-ring device opens with scissor - like action. Adaptable to many cover treatments. Positive alignment.

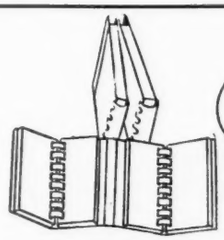


MULT-O — M — Loose-leaf binder of multiple flat rings opened, closed by levers. Two rings per inch hold sheets smaller than book.

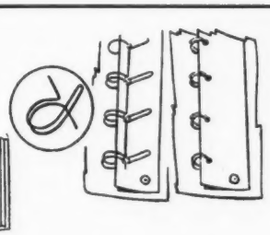


SPIRALASTIC — PC — Wire-plastic combination, colors. Continuous spiral wire in plastic. Combines appearance of plastic with strength of wire.

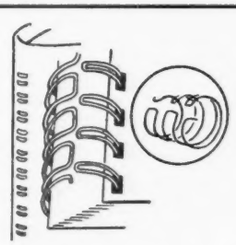
LASTIC — PC — ylindrical comb, non- flammable, non- rinkable. Backbone ay be stamped or nted.



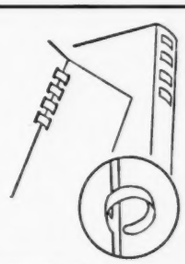
DOUBLE BOOK — Two or three mechanical units used to form double - width book. Center spine may also be mechanical unit.



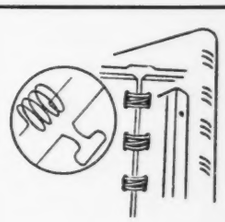
KAMKET — M — Wire, loose-leaf. Continuous single wire forms series of rings with open prongs, which, turned under flap in back cover, align paper.



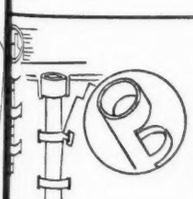
WIRE-O — MC — Single continuous wire forms series of double wire loops. Positive alignment. Sheets may be added or removed.



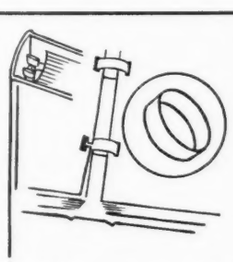
CERFLEX — PC — Round, flat rings joined by flat backbone inside rings.



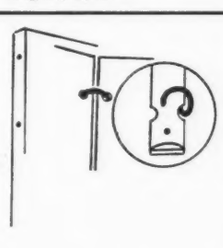
FLEX-O-COIL—M— Wire loose-leaf device. Four wire strands per coil equally spaced on continuous wire. Requires slot punching.



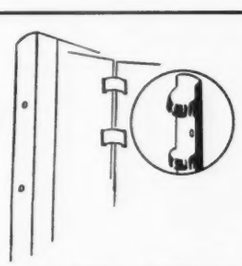
UBAK LOOSE- EAF — M — Alumi- um metal tube used ith slotted punching, that sheets can be serted without open- g device.



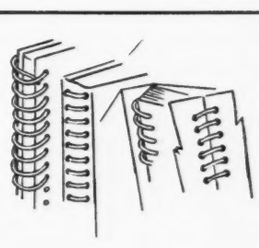
TUBAK RINGS—M — Aluminum rings used with slotted punching, so that sheets may be inserted without opening device.



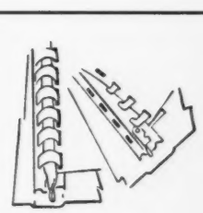
TAUBER LOOSE-LEAF — P — Plastic rings on continuous rod, mounted on rigid backbone which fastens to spine of cover.



TAUBER "DOUBLE L" — —PC — Interlocking rings on continuous backbone which fastens to cover spine. Completely concealed.

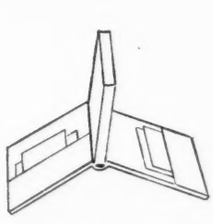


SPIRAL — MC — Continuous spiral single wire. Exposed, semi-exposed, concealed types. Latter two permit printing backbone.

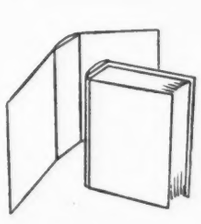


STREAMLINER — M — Loose-leaf device with continuous multiple rings and individual locking lever. Fully concealed.

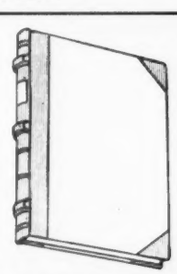
IDE-WIRE, (1) OUBLE COVER— ires go through book- and inner cover. ter cover with ex- nsion flaps is glued and flaps folded der.



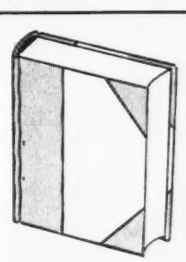
POCKET COVER — Additional utility for flexible covers is often obtained by adding pockets — vertical, horizontal, or both, as above.



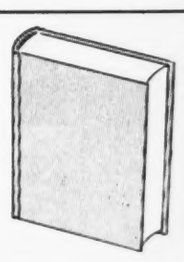
CASE BOUND — Book with stiff cover, made separately. Cover material affixed to boards, edges turned in. Inside lined to cover turned-in edges.



BOOKKEEPING BINDER — Heavy binding for hard usage. Reinforced backbone for extra wear. Bindings: leather, heavy canvas in various styles.



THREE - QUARTER BOUND — Book with leather covering ⅓ of board width. Leather corners have diagonal measurements ⅓ of board width.



FULL BOUND — A book in which case covers are completely covered with leather or substitute material.

EQUIPMENT & SUPPLIES

Ionotron Static Eliminator

THE Ionotron Static Eliminator for web and sheet fed presses and other fabricating and processing machery, is a product of the U. S. Radium Corp. It consists of a shielded bar, supporting a strip of radioactive alloy at the point on the printing press where the static charges tend to build up. The air at this point is ionized by the alpha rays from the radioactive source, and acts as a conductor to draw off the charges harmlessly as they are generated.

The static-neutralizing element consists of extremely thin metallic foil, incorporating a radioactive substance and welded to a nonradioactive, metallic backing. The foil serves as a mechanical bonding medium for the radioactive material and acts as a seal to prevent escape of radon gas. The construction is such that alpha radiation is emitted directionally, creating an ionized zone in the region of the electrostatic charge. The assembly is mounted in a housing designed to provide adequate shielding and can be supplied, within limits, in forms or shapes to meet special requirements.

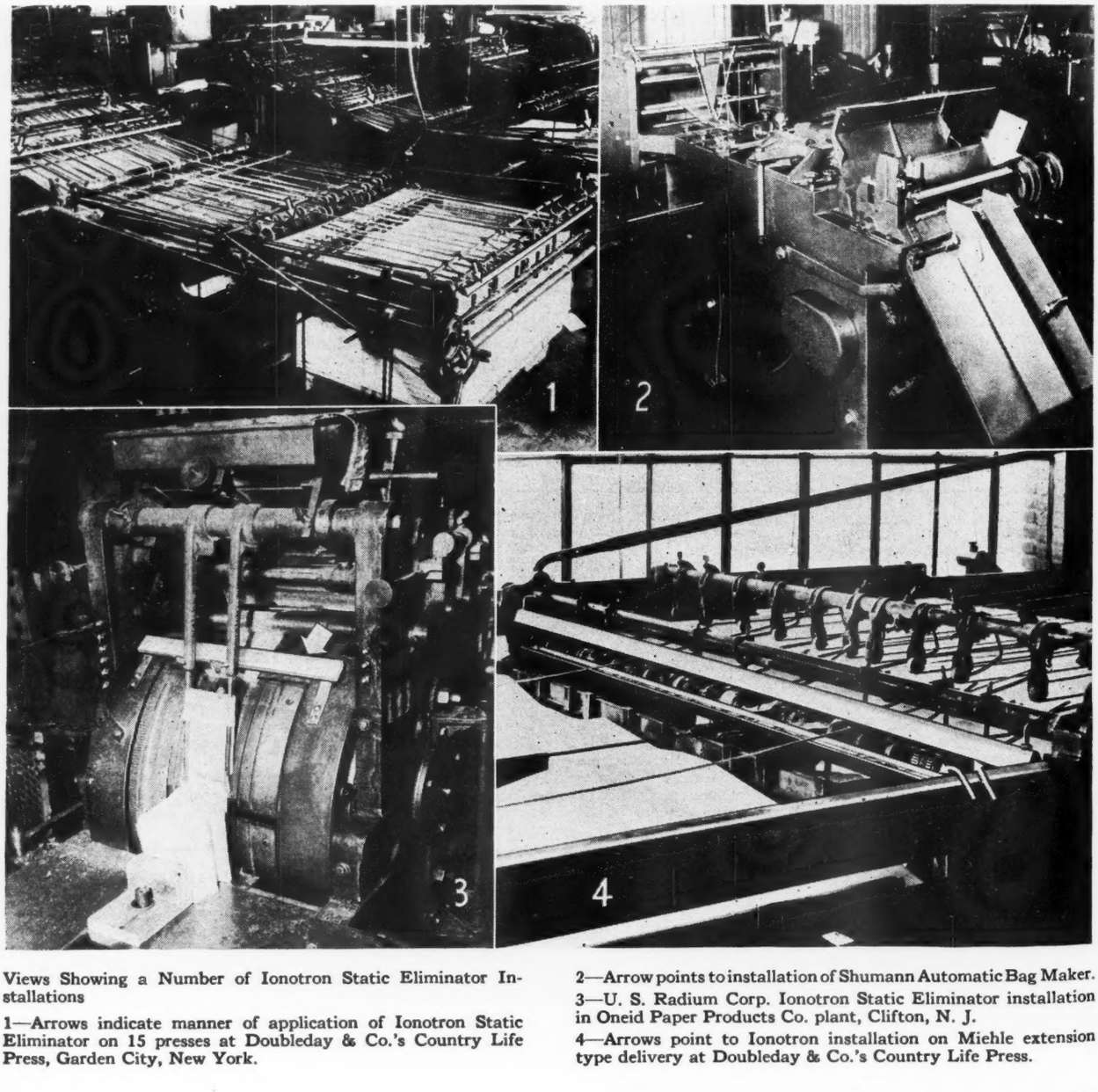
The thickness of the active layer of an Ionotron unit is 2.5 microns or less. Units are available with concentrations up to 1500 micrograms per sq. in. radium equivalent. The alpha radiation is 60% to 75% of theoretical. Total saturation ionization current produced is approximately 1.4 microamperes per milligram of radium. Emanation release is low.

Action of the Ionotron is permanent it is claimed, as the radioactive source loses only 50 per cent of its alpha ray generating power in some 1600 years, according to U. S. Radium engineers.

The Ionotron has no moving parts. Maintenance consists of occasional wiping to remove dust and dirt.

Web breakage due to static, states manufacturer, is eliminated with Ionotron installations. On sheet-fed presses, manufacturer also claims the following: Sheet control is improved in feeders, paper delivers properly, jogging is uniform, fire hazards are reduced; presses of all types often can be run at higher speeds with better reproduction and less waste.

The Ionotron is also used on machines processing foil, fabric and other materials, and is used in work with acetate,



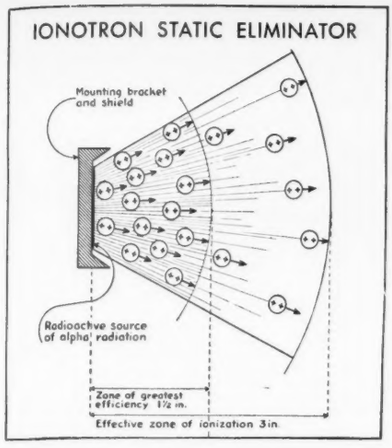
Views Showing a Number of Ionotron Static Eliminator Installations

1—Arrows indicate manner of application of Ionotron Static Eliminator on 15 presses at Doubleday & Co.'s Country Life Press, Garden City, New York.

2—Arrow points to installation of Shumann Automatic Bag Maker.

3—U. S. Radium Corp. Ionotron Static Eliminator installation in Oneid Paper Products Co. plant, Clifton, N. J.

4—Arrows point to Ionotron installation on Miehle extension type delivery at Doubleday & Co.'s Country Life Press.


IONOTRON STATIC ELIMINATOR
Mounting bracket and shield
Radioactive source of alpha radiation
Zone of greatest efficiency 1½ in.
Effective zone of ionization 3 in.

Cross-section diagram of Ionotron Static Eliminator used on web and sheet-fed presses. As will be seen in the diagram, the static-neutralizing element (radioactive source of alpha radiation) consists of an extremely thin metallic foil welded to a non-radioactive metallic backing. The radial lines are indicative of the alpha radiation which creates an ionized zone in the region of the electrostatic charge. Zone of greatest efficiency is 1½ in.; effective ionization zone, however, is 3 in.

cellophane, or lightweight stock. As an example sponsor reports Ionotrons have been installed on 15 machines in the plant of the Oneida Paper Products Co. at Clifton, N. J., maker of cellophane wrappers, paper bags, and envelopes. Work includes cutting, folding and printing.

C. K. Billeb, General Works Manager of Milprint, Inc., Milwaukee, with other plants in Philadelphia, Los Angeles, San Francisco and Tucson, has made a study of static. Milprint works with materials producing static electricity.

"In the manufacture of bags from pliofilm, acetate, or other similar high-static films," Mr. Billeb said, "the troubles of static have been reduced to a minimum or eliminated altogether. The bag machine treatment is to use three bars; one is mounted directly over the draw rollers, one across the tube travel between the bottoming cylinder and the segments, and one at the delivery so finished bags pass under as they shoot into the delivery magazine.

"On rotogravure printers, the Ionotron can be safely used because it is explosion-proof. One bar across the web at each color unit keeps static eliminated sufficiently to prevent static fires and 'hugging' over the rollers.

"On sheeters, or sheet-fed equipment," Mr. Billeb went on, "the Ionotron bar eliminates virtually all trouble caused by static. The bar should be mounted so the sheet passes under it just before shooting into the jogger table. Another bar mounted across the web as it enters the cutter, or across the sheet travel as it enters the first operation, will serve to prevent plugging, faulty position, and other static worries."

One large book printing plant has been operating for some time with Ionotrons. As examples of the use of the bars in this plant, on its 69½ in. Miehle perfecting presses installations were made on the delivery carriage, and on Scott rotary presses with four-sheet collecting rolls, the installations are at the feeding end, after the knife.

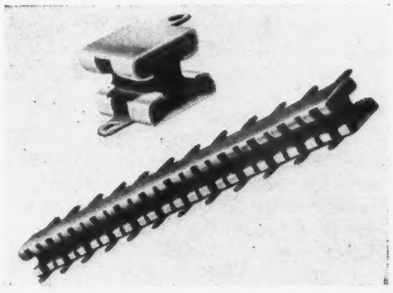
Ionotrons are also used in many plants having similar equipment or with similar conditions. They are installed on plastic coating, paper and textile machinery and on photographic film dryers.

Further information may be secured by addressing your request to *Printing Equipment Engineer*.

New Light-Duty Vibration Mount

A NEW light-duty vibration mount to isolate vibration in radios, electronic equipment, test apparatus, and other electrical equipment, has just been announced by Hamilton Kent Mfg. Co. The new mount is said to be capable of handling dead weight loads as low as ½ lb. per lineal inch of mounting strip.

Rexon vibration mounts utilize the vibration dampening properties of "rubber-in-shear" but with no possibility of *overloading* the shear elements, it is claimed. This property stems from the use of a special "X" design of the rubber



element which acts in shear at the points of the "X" under normal loading, but in compression when the load exceeds the rated capacity of the mount.

Rexon light-duty mounts are furnished in strips 12 in. long. The entire strip may be used, or the strip may be cut into any length section (in inch multiples) depending on the load to be supported. Drilled mounting lugs can be positioned to fit almost any type of mounting.

Cabinet Counter Unit

CENTRALIZED installation of electric counters can be facilitated by panel-mounting cabinet units developed by the Production Instrument Co. Each cabinet unit is designed to house and enclose five Wizard Panelmount Electric Counters. The counters are connected and installed from the front making it practical to completely assemble and wire the cabinet before counters are installed. The counters are equipped with convenient terminal screws for connections.

Knockouts for conduit connections are provided in the cabinets. Knockout holes for bolts in sides, top and bottom facilitate combining and mounting any number of cabinets. The cabinets are self supporting. Cabinet capacity for 100 counters requires a space 56 in. wide, 40 in. high and 5½ in. deep.

Wizard Panelmount Electric Counters are actuated by electric impulses from a switch, relay or photo-electric unit operated by motions or objects being counted. Thus a group of Wizard Counters mounted in these cabinets can be arranged to maintain a continuous count of production or material movements throughout the largest plant.

Rear View of Counter showing Terminals for wiring connections.

For descriptive literature write the Production Instrument Co., in care of *Printing Equipment Engineer*.

Nolan Chief Saw-Trimmer

THE Nolan Corp. announces the Nolan Chief Saw-Trimmer. It is equipped with a mitering attachment, hand lineup gauge for sawing variable measure composition or squaring mounted plates. Manufacturer states an extension arm makes it easy to handle large type-high plates and inside or outside mortising can be accomplished quickly. A clamp accommodates all work from 8 pt. to 42 picas.

Safety features incorporated are aluminum saw guard, transparent unbreak-

BRINGS IN THE CASH

Two years ago Fred A. Grammell, a Portland (Ore.) printer with an urge to grow, made a resolution to become the owner of a 12 in. by 18 in. automatic press unit, and started to save all the silver dollars that came his way. Recently, Mr. Grammell staggered into the Portland branch office of American Type Founders with a heavy box which he deposited on the counter, only to go out to his car and lug in another one, equally heavy. Both boxes were filled with silver dollars—1200 of them, a down payment on the coveted unit.

able guard for use with plates, a thumb guard on gauge, a handwheel for raising and lowering saw table section, and a non-slip screw locks the saw in desired cutting position. The screw controlling the precision type gauge is covered. Further information will be sent forwarded upon request to *Printing Equipment Engineer*.

Half-Million Offset Runs Claimed With New IPI Tri-Metal Plate

A METAL offset plate which it is claimed will lithograph press runs into the hundreds of thousands without signs of wear and resists cracking, yet give a last impression as clean and sharp as the first, was recently announced by the International Printing Ink Research Laboratory, New York, N. Y. The new plate, known as the IPI Tri-Metal Plate, is composed of three layers of metal—chromium, copper and a base metal. The latter was originally steel but is made of zinc at the present time because of the unavailability of steel for this purpose.

Sponsor states that although a steel base would give even greater longevity, the current zinc-based IPI Tri-Metal Plate has lithographed on commercial runs over 600,000 maps on which previous plates usually wore out after only 50,000 impressions; 461,000 folding boxes on which conventional plates had given up the ghost at 25,000 impressions; and 540,000 labels on which previous plates fell down at 100,000 impressions. At the end of each of these runs the image on the IPI Tri-Metal Plate showed no signs of wear.

Experimental runs with steel-based IPI Tri-Metal Plates are reported which better resist repeated sharp bending at the gripper clamps have given 1,750,000 impressions, 2,293,859 impressions and 3,103,101 impressions. One such steel-based plate was put on and taken off the press 36 times.

IPI announces that "Wear resistance and tough physical characteristics are only half of the Tri-Metal Plate story. The fact that halftone areas maintain 100% ink-receptivity means clean and sharp printing throughout the entire lithographic run to the last sheet."

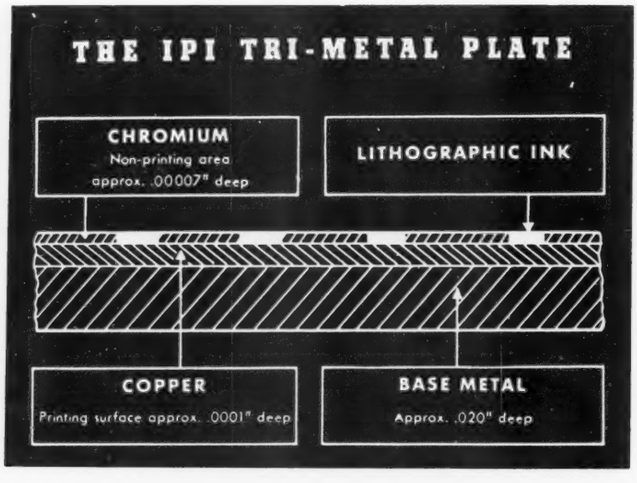
Processing an IPI Tri-Metal Plate is essentially the same as the methods used for a conventional deep-etch plate. The chromium plating is removed from the design area, exposing the copper. Thus the lithographer is spared the expense and bother of installing a metal-plating department.

The advantages of copper as a printing surface are well known to every pressman. For offset work it has the additional advantages of being sensitive to grease and longer wearing than the lacquered surface of conventional deep-etch plates. Important, too, is the fact that if a copper work area is accidentally inactivated by premature wetting with acid fountain solution, it may again be made ink-receptive quickly, while the plate is still on the press and without impairing in any way the ink resistance of non-printing chromium areas.

Another important advantage of the IPI Tri-Metal Plate, as reported, lies in the fact that chromium, the metal covering non-printing areas, is less sensitive to grease than most other industrial metals including aluminum. Hence it is more efficient in its job of keeping non-printing areas untinted and in securing sharper, cleaner impressions. Also less water is required to keep the work clean and open which means that drying conditions are considerably improved and stronger colors made possible. Still another virtue of chromium is its high resistance to oxidation and wear.

It is expected that the long life of IPI Tri-Metal Plates automatically means uninterrupted lithographic runs without shutdowns for plate renewals. Operating economies more than offset the slightly higher original cost of this new plate, particularly on long runs. On a 500,000 run in three colors on boxboard, one customer estimates that he saved $1450 in plate costs.

The IPI Tri-Metal Plate, it is stated, with IPI Vapolith Inks under both heat-set and room temperature drying conditions. It also works satisfactorily with conventional inks.

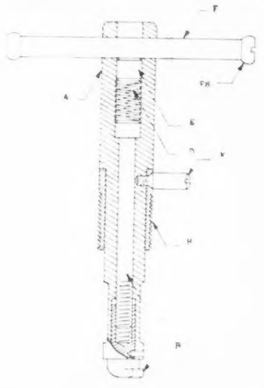


Inquiries will be answered promptly by International Printing Ink Div. Interchemical Corp., or *Printing Equipment Engineer* will be glad to forward your inquiry.

Vise Locking Screw with Adjustable Locking and Selective Handle Position

LINOTYPE PARTS CO., INC., has announced a new feature in its vise locking screw for Intertypes and Linotypes. This improvement consists of a means to adjust both the locking cam for maximum cam bearing in the pocket of the vise locking stud and the position of the vise locking screw handle, so that the cam will engage the stud pocket lip with maximum bearing and at the same time the position of the handle can be maintained in its original position as wear occurs in both cam and bearing.

When new, the normal position of the vise locking screw handle (*F* in the illustration) when the screw itself is locked in the female vise locking stud is at a slight angle towards the left. When the parts are new, this position of the handle *F* indicates there is maximum bearing between the cam *B* and the flange of the stud. As wear occurs in either part, the handle *F* will tend to come to a vertical position when the vise is locked in normal position.



The intent and purpose of Linotype Parts' Adjustable Vise Locking Screw, diagram for which is shown here, is that before too much wear occurs, the original locking position may be restored the same as when the screw was new. Another feature of this adjustable screw is that if the locking cam or lip is broken off and replacement is necessary, a new cam may be applied.

The device which makes possible adjustment to compensate for wear is a threaded rotatable sleeve *H*, in the outer end of which a number of holes have been drilled. Adjustments are made without removing the vise locking screw from the machine, in this way: The safety stud *K* is turned out, and, if it is desired to take up wear in the surface of the female vise locking stud, or in the cam *B* of the vise locking screw, the sleeve *H* is turned counter-clockwise, one or more holes as necessary.

When the old parts are replaced by new ones, a clockwise adjustment of the

sleeve *H* is made to restore the original position of the handles as when new.

The manner in which the vise locking screw *K* is replaced is as follows: The handle screw *FS* is removed and the handle withdrawn together with the plunger *E* and the spring *D*. An Allen-head wrench provided with the vise locking screw is used to remove the cam holding screw *C* from the body *A*. The cam drops out and is replaced by reversing the foregoing procedure.

Further information may be obtained from The Linotype Parts Co. Inc., or through *Printing Equipment Engineer*.

Newspaper Web Offset Presses

AMERICAN Type Founders, Inc. announces it is manufacturing four-unit, 16-page newspaper offset presses at its plant in Elizabeth, N. J. Formerly built at Mount Vernon, N. Y., by the ATF-Webendorfer Offset Press Div., the machinery is being produced by the newly-formed Elizabeth Web Press Division. Albert Vogel, who was with Walter Scott & Co. is manager of the new division.

Mr. Vogel said a number of engineering improvements and refinements were made. All machine work is being done in the Elizabeth plant, and four erecting stands have been set up.

Vogel said while the press is considered a standard model, in that each four-page unit is built to the same specifications, there will be variations in order to accommodate special needs of purchasers, both in production and in the space available for installation in buildings.

Two- three- and four-unit, or eight-, 12- and 16-page combinations will be built.

ATF's announcement said that in addition to production slated for newspaper plants, presses have been ordered by commercial printing companies with magazines, catalogs and other long-run jobs.

Some specifications and features of the presses are:

A four-unit model will produce a 16-page newspaper, in one color, or one four-page newspaper with all pages in four colors.

In detail, the printed product can be: With four webs feeding: 16-page newspaper size (17½ in. by 22¾ in.) or 32-page tabloid, one color to side; or

Two webs: Eight-page newspaper, 16-page tabloid, or 32-page signature (8¾ in. by 11⅜ in.), two colors to each side; 8-page newspaper, four pages with three colors, four pages with one color; 16-page tabloid, eight pages with three colors, eight pages with one color; 32-page signature, 16 pages with three colors, 16 pages with one color; or

Using one web: 4-page newspaper, 8-page tabloid, or 16-page signature, four colors to each side.

An imprinting unit, printing from a rubber plate, provides for an additional color, such as a flag, a box, an overprint, a tint block, etc. This unit, functioning independently from the rest of the machinery, can give an imprint up to 17½ in. by 22¾ in.

Capacity is 16,000 or more folded copies per hour.

Webs are 35 in. wide, rolls about 36 in. diam. with 900 lb. weight.

Roll stands are equipped with automatic tension controls for the paper as it feeds into the press, and with variable speed controls.

The lithographing units are each equipped with a running register so that, while the press is running at any speed, the cylinder can be adjusted to bring the colors into register, both circumferentially and for side register.

The folder will fold and serrate cut a 16-page newspaper product or a 32-page tabloid, or a 32-page magazine half the size of the tabloid. (While the press would print a 64-page signature, it is not feasible, because the product bulks too large for good folding.)

Equipment includes a flat sheet chain pile delivery, which will cut sheets 22¾ in. by 35 in. and deliver them into a pile.

The press can be equipped with rewinder so a web printed in up to four colors can be rewound into a roll about 36 in. diam.

Press is powered by a 30 h.p. motor with push-button control system.

Machine occupies a floor space of 12 ft. by 46 ft., and it is 10 ft. high. Weight approx. 60,000 lbs.

Webs are usually located one at the end of the press and three at the side. But the rolls can be superimposed, one above the other, at the end.

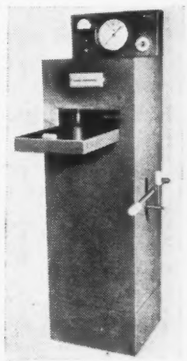
Platforms provided for full length of press, for operator accessibility on the upper level.

Hardened and ground printing cylinder gears are used, and all gears are shaved for accuracy, to 0.0001 in. Ball and roller bearings used on high-speed revolving parts. Special materials, heat-treated and hardened for parts subjected to severe duty.

Inking rollers are rubber-covered; dampening rollers are rubber-based. Indicator shows the press speed and rate of product delivery, and there are additional folder and sheet delivery counters.

Rubber Plate Vulcanizer

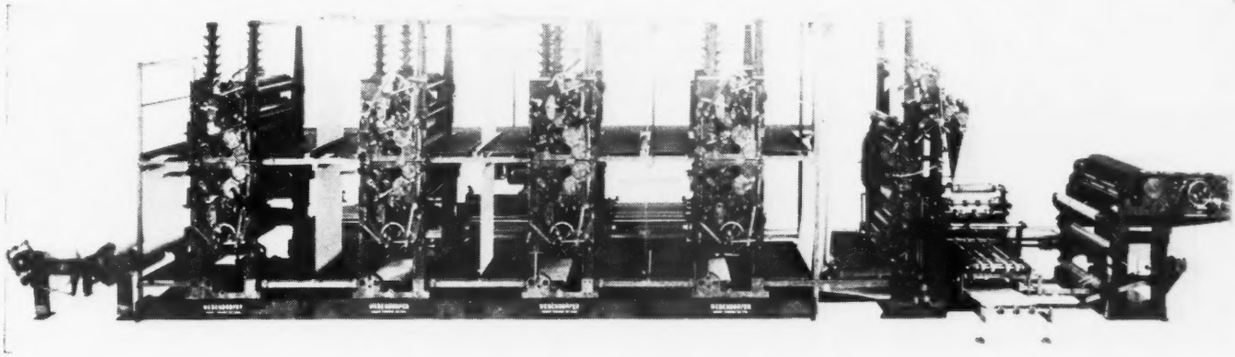
A NEW rubber plate vulcanizer, which produces rubber plates for flatbed and rotary presses, is now being manufactured and sold by Supreme Laboratories, Inc. The unit is being made up with 13 in. by 11 in. precision ground platens, which produces a 12 in. by 10 in. rubber plate. Manufacturer states it is planned to furnish vulcanizers in all of the popular sizes for making larger plates.



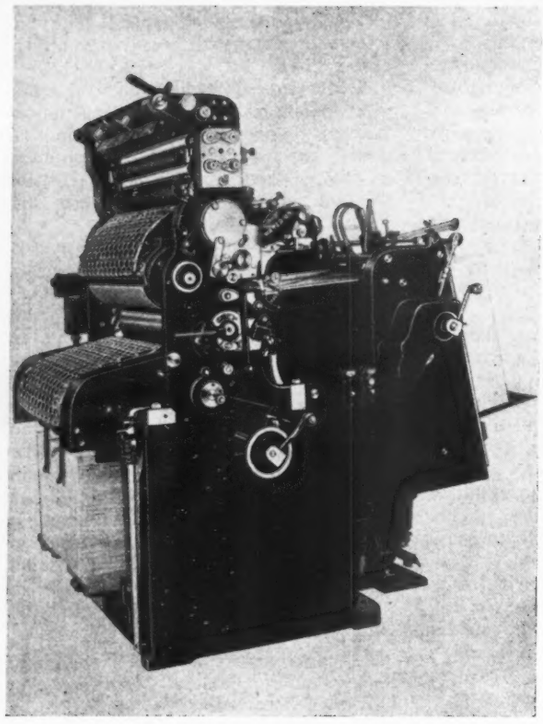
View of Supreme rubber plate vulcanizer. Platens are 13 in. by 11 in. to produce maximum 12 in. by 10 in. plate. Hydraulic unit has 20 T. capacity.

According to F. Tompkins, chief engineer of Supreme Laboratories and Anthony Mifsud, president of the company, several features are included. There is one hydraulic unit, with a 20 T. capacity, which is an integral part of the press. Included also, is a 30 min. timer and pyrometer temperature indicator. Another feature is the quick changing provision of the heating elements.

Further information will be furnished by addressing your request to *Printing Equipment Engineer*.



Currently, American Type Founders, Inc., announces it is now building four-unit, 16 p. Newspaper Web Offset Printing Presses at Elizabeth, N. J. Capacity is 16,000 or more folded copies per hr. According to number of pages, more or less color can be printed. A rubber plate imprinting unit is available.



View of ATF's Little Chief 20 Offset Press which has been improved and now carries a new set of specifications. Size, 14 in. by 20 in. Production speeds rated by maker at 3600 to 5000 i.p.h.

New Specifications for ATF Offset Press

AMERICAN Type Founders, Inc., has announced a new set of specifications and certain improvements for its ATF Little Chief 20 offset press. The press is designed for the printer who wants to do run-of-the-hook work, including halftones, yet whose requirements include the reproduction of ruled forms and advertising pieces. An improvement in the Little Chief is longer and heavier back paper guide equipment on the feeder, allowing a lower level of the elevator table with top sheets kept in proper position.

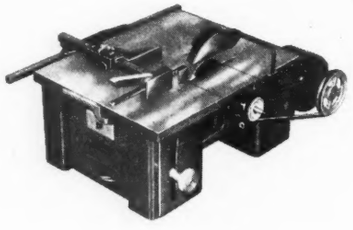
Other features of this 14 in. by 20 in. offset jobber are: A quick-set feeder permitting change from one size and weight of stock to another. All adjustments are made by thumbscrews; no wrenches are necessary. Operator positions sheet with adjustable pile-slide bar. Three adjustable vacuum suckers lift the sheets from the pile, and there is a two-sheet detector for tripping the press.

Positive reversible side guide with micrometer adjustment assures perfect register of sheets at maximum speed. There are also two adjustable headstops for register corrections. A hand ratchet lever for quick setting of ink fountain. Snap-on plate clamp, permitting a wide selection from regular to thin style metal plates, or a standard type of plate clamp for use with unpunched plates, they are not interchangeable. Positive bar-chain and automatic lowering-pile delivery.

Specifications for the ATF-Webendorfer Little Chief 20 are: Largest sheet, 14 in. by 20 in.; smallest sheet, 8 in. by 10 in.; printing area, 13⅜ in. by 19¾ in.; plate size, 14½ in. by 20½ in. by 0.008 in. to 0.012 in.; blanket size, 16 in. by 20½ in. by 0.062 in.; cut of plate cylinder, 0.010 in.; cut of blanket cylinder, 0.071 in.; lightest stock, onionskin; heaviest stock, 0.018 in. (4 ply); feeder capacity, 17¾ in.; delivery capacity, 14 in.; ink distribution rollers, 12; water distribution rollers, 5; speeds, 3600 and 5000 i.p.h.; floor space, 41 in. by 57½ in.; drive motor, ½ h.p.; pump motor, ⅓ h.p.; net weight, 1700 lbs.; domestic shipping weight, 1910 lbs.; export shipping weight, 2100 lbs. With electrical equipment ready for connection to power line; extra set of uncovered dampening roller cores; detachable roller washer, and tools. Further information can be had from ATF or send your request to *Printing Equipment Engineer*.

Pioneer Saw-Trimmer

PIONEER'S new saw-trimmer is now in production. It is heavier than the pre-war model and has been completely re-designed and re-tooled. According to F. S. Young, President of Pioneer-Toledo Corp., basic features of



the pre-war saw have been retained, most distinctive of which are the table and gauge designs. All Pioneer tables are open and clear without grooves or channels for gauge slides. When the gauge assembly is lifted off, the saw can be used as a standard saw table. Point adjustment is on the pica gauge with maximum visibility. The saw has a welded steel frame, open on the side for chip discharge. Height of saw blade is adjusted by raising and lowering the arbor. The table is always level. Saw mandrel is precision ground and mounted in ball bearings with sealed lubrication. Work clamp has positive lock, operated by a single lever with adjustable clamping pressure.

Self-Acting Center-Punch

AUTOMATIC control of the force with which the point is driven into the work is one of the features of the Impakt self-acting center punch developed by Satterlee Products. In this tool, the low mass of individual turns in a coil spring moves a short distance at high velocity, imparting a sharp blow to the point. The impact is accurately controlled to suit varied requirements—a light tap results when the control knob is withdrawn about ⅛ in. and a heavy

blow results when the full stroke of ⅝ in. is used. This smooth control permits accuracy of work, especially on thin metal or where very small punch marks are desired.

The Impakt self-acting punch is 5/16 in. diam., 5 in. long, and weighs ½ oz. The tool is pencil size and also useful as a scriber. Deep cut knurling aids secure gripping of shank and control knob. Points are replaceable.

This instrument should have utility among platemakers and machinists in the printing or platemaking plant. Further information will be forwarded gladly by *Printing Equipment Engineer* upon request.

Simplified Newspaper Color Equipment*

THE Chemco Photoproducts Co. has developed a combination of machines for less difficult production of newspaper process printing plates. These machines were built to be used with non-stretch aero mapping paper. We do not

*Abstract of address delivered before ANPA Mechanical Conference, Chicago, June 1947, by Sam B. Anson, Jr., Manager Chicago office, Chemco Photoproducts Co.

claim to be originating a new process—we are merely providing adequate, well engineered equipment for an old process. The use of non-stretch paper enables the photoengraver to get a foretaste of how his finished product will look.

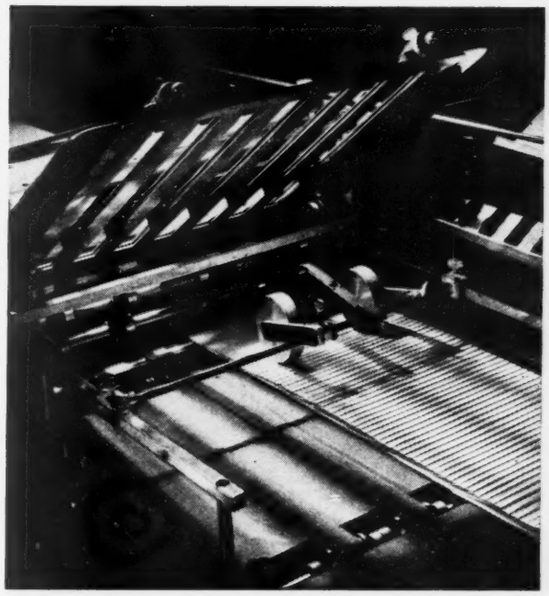
The machines we are promoting are two in number. No. 1 is the Chemco Color Separation Camera, which is, in appearance, much like the standard Model F Camera universally used for black and white production. The Separation Camera is equipped with a positive illuminator, as well as a pair of standard sidelight reflectors, to enable the operator to produce color separated negatives from transparencies by transmitted light, or from opaque or water color by reflected light with equal facility. There is no screen holder in this camera,—the product of the machine is continuous tone 8 in. by 10 in. color separated panchromatic negatives only. The separation of the colors is accomplished in the usual standard fashion, employing the ordinary panchromatic sharper cutting filters.

Machine No. 2 is the Chemco Color Enlarger. The Chemco Color Enlarger is simply a horizontal projection printer. The product of the separation camera is placed in the negative holder of this enlarger and the images (one for each of the four colors) are projected on non-stretch aero mapping paper. The illuminant in both machines is cold fluorescent.

The four paper separation prints exhibited here are 14 in. by 17 in. paper positives, projected from color-separated negatives made from an 8 in. by 10 in. Eastman Kodachrome. The set of progressive proofs represents the result of the work done on our new color machinery. In this set we know there has been much over printing of underlying colors, but we present these proofs to show what can be done with no masking, retouching, staging, re-etching or hand finishing. Handwork, particularly in color separation masking or by adding or eliminating full color by retouching, would have helped the job immensely.

All the photo-engraver has to do with these paper positives is to handle them as a straight black and white job. Of course, it is necessary to angle his negatives to eliminate the pattern in color printing. Many newspaper plants are equipped with stripfilm roll cameras. The Chemco camera will not take a circular screen. We suggest that the photoengraver equip himself with a set of matched and reversible full page screens. By a set of matched and reversible full page screens I mean a 20 in. by 24 in. screen, ruled at 65 or 75 lines to the inch, at a 45 deg. angle for the black plate; a second screen, ruled at a 75 deg. angle for the red plate, the same screen when turned around and reversed is 105 deg. and it may be used for the blue plate; a third screen ruled at a 90 deg. angle is used for the yellow plate.

Of course, if there has been any color separation missed in the original negatives, the necessary correction may be added by any newspaper artist with china white, opaque black, or any variety of grays commonly used.



View of delivery end of Olson Precision 17 in. by 22 in. folding machine. Average folding speed, using parallel and right-angle sections, is stated to be 10,000 per hr.

17 in. by 22 in. Olson Folding Machine

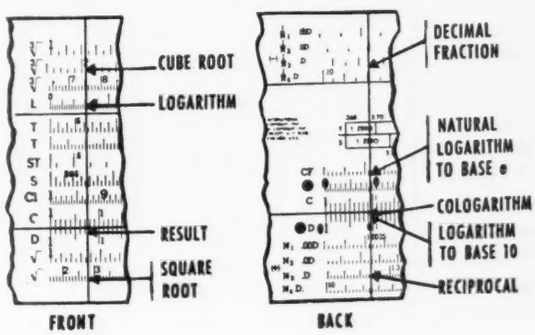
R. E. OLSON Folding Machine Co. has announced the addition of a new 17 in. by 22 in. size to its line of folding machines. This machine is available either with friction feed or with continuous air feed, and handles a full 17 in. by 22 in. sheet, including two parallel and three right-angle folds, or 17 in. by 26 in. with parallel folds only. Minimum size sheet is 3 in. by 4 in. Average actual folding speed, using both parallel and right-angle sections, 10,000 per hour. This new machine incorporates the same improvements in folder design that have been incorporated in the smaller size Olson Precision Folders, including the positive hold-down for the cross-carrier that eliminates sheet flutter at high speed and maintains folding accuracy on right-angle folds, even on smallest sheets. Complete details and delivery schedule available on request. Address your inquiry to *Printing Equipment Engineer*.

ATF Type Booklet

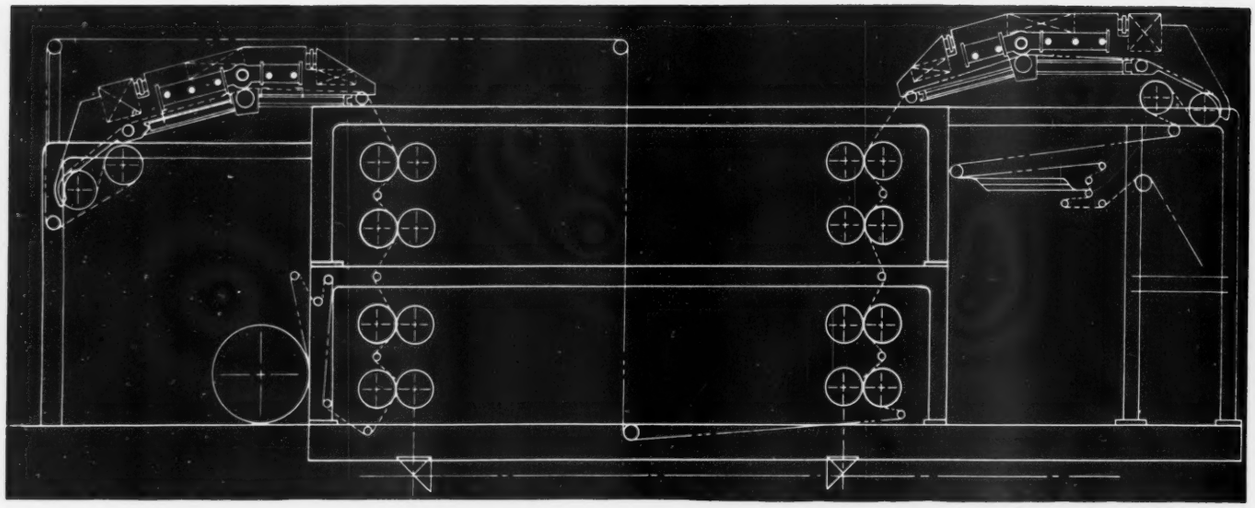
A 32-PAGE, pocket-size booklet, *The Handy Index of American Types*, is available from American Type Founders, or any of its branch offices and agents. In the booklet are given samples of each of 230 of the more popular ATF type faces, with comparisons of width; sizes of bodies with length of ascenders and descenders on each face; point ranges available; an arrangement by styles so a type can be found quickly in case the name has been forgotten. It also provides an easy method for a printer to index his own types for ready reference or to help a new compositor.

Deci. Log Log Slide Rule

A DECI. Log Log Slide Rule that simplifies computation, is announced by Pickett & Eckel, Inc. The scales, on the front of the rule, are so arranged that one setting of the hair-line gives with each result its square root, cube root and logarithm. The log log scale on the back is expanded for greater accuracy, and arranged to give these five readings with each setting of the hair-line: (1) Decimal fraction to 4 and 5 figures, (2) its reciprocal to 4 and 5 figures, (3) Logarithm, (4) Cologarithm, (5) Natural logarithm to base. The scales read from one ten billionth to ten billion, and give decimal point location. A simple legend tells which scale to read when raising to powers. The slide rule is made of magnesium alloy with plastic surface bearing permanent, expanded, and easy-to-read washable scales. Size is 12⅛ in. by 2⅛ in. by 3/16 in. Complete with carrying case, illustrated Instruction Manual by Prof. M. L. Hartung, University of Chicago, set of Typical Problems.



With the Deci. Log Log Slide Rule, several readings with each setting of the hairline may be obtained, without turning rule over. Decimal fractions, such as .99753 may be read with extreme accuracy.



Heat-Set Inks for Color Comics—In this diagram is illustrated application of two Selas ink dryers for use with Vaporin Heat-Set inks on Hoe 8 cyl. color press. Just recently, International Printing Ink Corporation announced development of Vaporin Heat-Set inks for printing color comics in newspaper supplements upon news stock. Qualities claimed for the new heat-set inks are: (1) No oil stain because the ink sets instantly upon the application of heat; (2) Ink sets on top of the sheet without penetration; (3) No show-through for the same reason; (4) The printed results are more brilliant and sharp. Comparative specimen printings on 22 and 32 lb. news stock and on 34 lb. roto-newsprint are available upon request as long as they last. Address your request to International Printing Ink, Empire State Bldg., 350 Fifth Ave., New York 1, N. Y.

Adjustable Tie-ups

AUTHORS' alterations, office corrections, lockup, storage, reprints, and similar operations compel the handling of pages of type on many occasions. To facilitate these operations The Riehl Galley Lock Co. provides an Adjustable Tie-up. This device consists of four stainless spring steel angles assembled with friction sleeves. A feature of these Tie-ups is that they can be expanded approx. 150%. Thus, a 6 in. by 8 in. Tie-up expands to 11 in. by 14 in. In the average publication composing room it won't be necessary to have more than one or two sizes of Tie-ups. The Tie-up can be used with or without the grooved reglets shown in the accompanying illustration. The grooved reglets may be obtained from Riehl, or metal grooved strip-cast reglet may be used. When used with the reglets it becomes a permanent Tie-up and remains on the page at all times; in this way, there will be no tying and untying for corrections, lockup or storage, or when locked in the form on the press. To make corrections, the Tie-up is opened at one corner.

Manufacturer claims following advantages: (1) When page is made up it's also tied up; (2) Tight type matter and better alignment result in cleaner proofs; (3) Corrections and alterations can be made quickly; (4) Use of the Tie-up assures safe and fast handling of type pages; (5) Lockup of pages is expedited; (6) Retying operations are eliminated since pages enclosed in Tie-ups are ready to be lifted or slid from form onto galleys or cards; (7) Average of 6 min. correction and handling time per page is saved.

Further information may be obtained by addressing your inquiry to *Printing Equipment Engineer.*

Two Bulletins

THE Lake Erie Engineering Corp. has issued two bulletins. Bulletin No. 148 is a 4-page illustrated folder on the 800 T. Series 48 Directomat. Described in the bulletin is the process for molding dry mats. The press closes, develops preset desired molding pressure and opens. For molding wet or plastic mats pressure is automatically reduced after molding to a low level for drying, preset electric timer causes press to open automatically and gives uniformity of timing.

Bulletin 241 is an 8-page folder in which is described the Acraplate presses for molding rubber and plastic plates. Hand pump or motor driven models are illustrated, and may be equipped with steam or electric heating. Information on the production and use of rubber and plastic plates is included. Listed also is the optional equipment available. Copies of these bulletins may be obtained upon request to *Printing Equipment Engineer.*

Hammond RouterPlaner

A MODEL RP-12 RouterPlaner has been announced by Hammond Machinery Builders, Inc., for routing and planing in the commercial shop and smaller newspaper plants.

It is powered with a ½ h.p. constant speed, regular type motor with belted drive to a ball bearing spindle. The ball bearing spindle runs at a constant speed of 10,500 r.p.m. The desired routing depth for either type-high or shell plates is obtained with the hand wheel above the spindle when the spindle is running or idle.

Type-high planer equipment consists of planer plate with clamps, planer tool and type-high gauge. Planer plate can be used for holding cuts that are too small to hold by hand.

Pulleys and spindle are dynamically balanced for vibrationless operation as is the three jaw chuck which holds the router bit or planing tool.

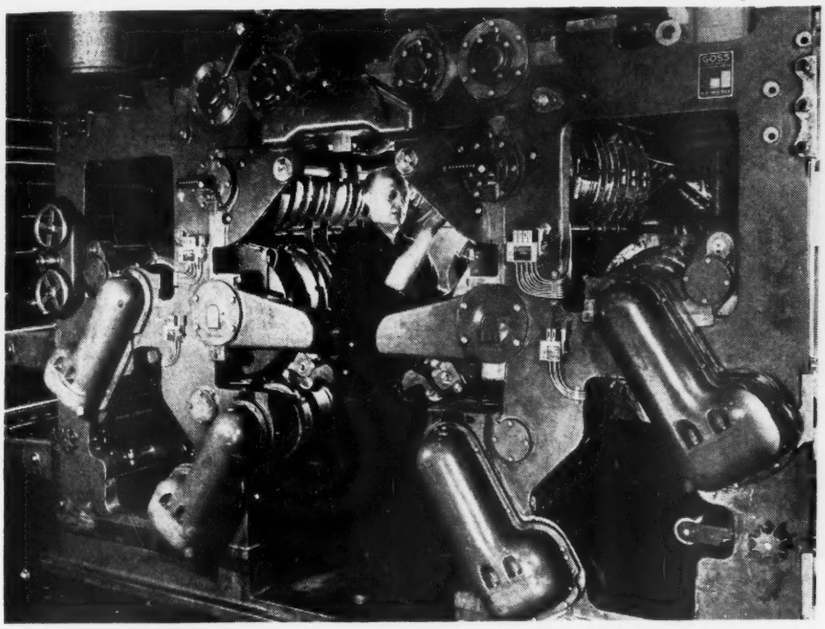
The table, 20 in. by 22 in., will accommodate work up to full newspaper page size. Further information may be secured from *Printing Equipment Engineer.*

View of galley upon which is resting a type page bound with Riehl Adjustable Tie-up. Tie-up consists of four stainless steel angles assembled with friction sleeves. The Tie-up can be used with grooved wood or metal reglet as shown in this illustration. Corrections may be made by opening one corner. Tie-up can be left on the page of type at all times.

Correction

In the report of the Offen *Drier for Newspaper Color Press* which appeared on pages 26-27-28 of the July issue of *Printing Equipment Engineer,* the temperature in the drying chamber through which the printed web passes was erroneously stated to be between 150 deg. and 250 deg. The correct temperature, according to Mr. Offen, is from 400 deg. to 600 deg. in the drying chamber. We are glad to make the correction.

New Equipment Installations



Goss Magazine Press

TWO new Goss high speed magazine presses designed for the use of heat set inks have been installed in a recently completed addition to the modern plant of C. T. Dearing Printing Co., Louisville, Ky., a division of Fawcett Publications. Each press will print two webs in two colors on all pages for a 64-page capacity on one web. Four colors can be printed on all pages for a 32-page capacity. The press speed is 20,000 cylinder revolutions per hour.

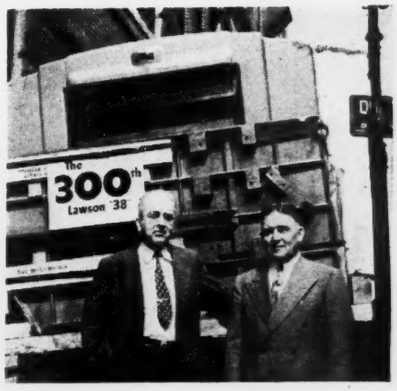
Included in the installation are paper reels, Goss in-feed devices, dryers, oil offsets, and air operated throw-offs for the plate cylinders.

The inking motions have provision for water circulation, incorporating double ductors, and the drives and gearing operate in full oil enclosures. Forced feed lubricators provide automatic lubrication of the vibrating mechanisms.

The inking carriage drives take their power directly from the main press drive shaft. Inking rollers are equipped with two-point adjustment on the roller bearing sockets. The presses are equipped with anti-friction bearings; all rotating parts are dynamically balanced, and all drives have full oil enclosures.

Double folders, each provided with two double deliveries, permit the printing of eight different multi-color signatures simultaneously. These folders have high speed combination pin point and gripper, and are of right-angle type with laminated grippers and jaws.

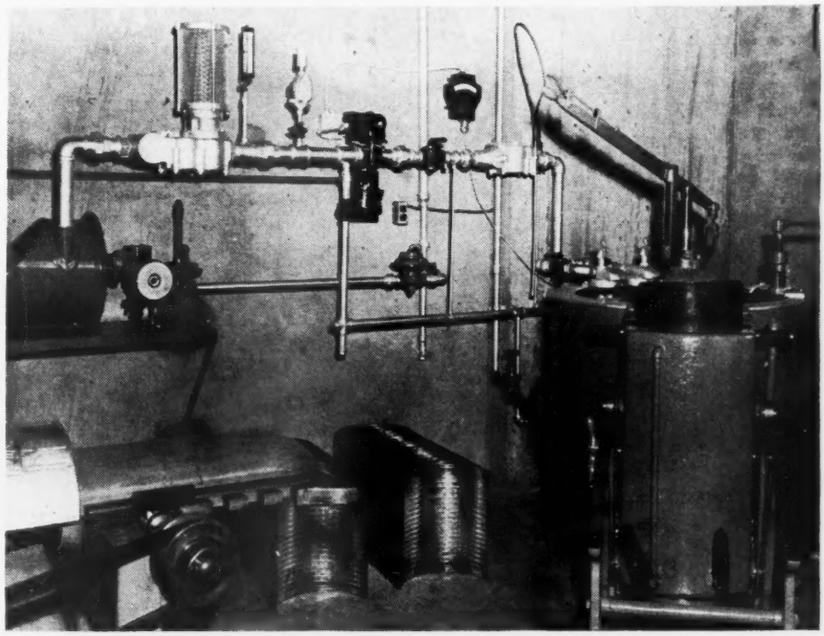
Together, these two new Goss presses weigh in excess of 330 T., each press being 77 ft. long, 16½ ft. high, and 20 ft. wide over the folder deliveries. A total of 12 railroad cars were required to ship this equipment to the Dearing plant at Louisville.



The 300th Lawson "38" Paper Cutter was recently delivered from E. P. Lawson Co.'s New York showrooms to the Queen Ribbon & Carbon Co., Brooklyn, N. Y. Shown supervising the loading operation are (left) Chief Engineer Fred Seybold and W. J. Hourigan, Treasurer of the company.

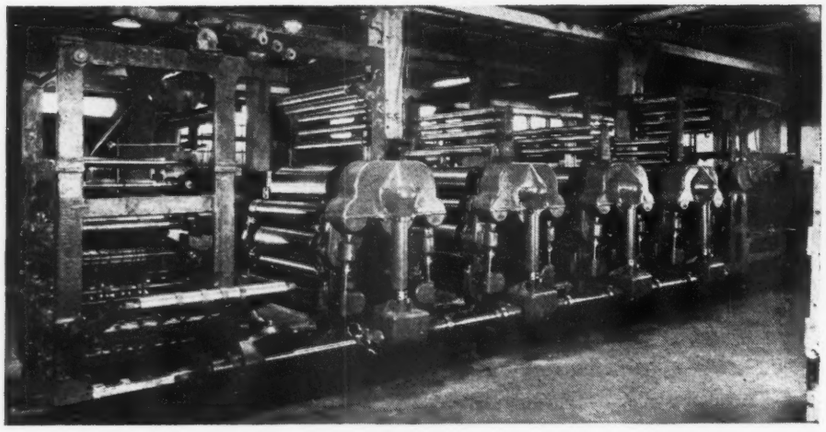
Opens Branch Office

Virkotype Corp. of Racine, Wis., manufacturers of raised printing machines and supplies, has opened a New York office, it was announced recently by Kenneth Gebbie, president. This office, located at 601 W. 50th St., will maintain a service department and display machines.



The 36 in. diam. stereotype melting pot shown here is of 7000 lbs. capacity. Its casting rate is 2400 lbs. per hr. Metal for casting plates is pumped by hand into the single casting box. Equipment is used in plant of *Star & Herald* and *La Estrella de Panama of Panama City*.

The air-gas premixing equipment is wall mounted. Gas enters the carburetion system through the 1 in. vertical pipe at the center of the picture. It flows through an inlet valve into a two-stage governor system which discharges to the carburetor at atmospheric pressure. Filtered air from the room atmosphere is drawn through the carburetor by a turbo compressor. The carburetor has a capacity of 450 cu. ft. of mixed gas (550 Btu) and air per hour. Air and gas are mixed in the turbo compressor and boosted to a positive pressure adequate for combustion purposes. The 2 in. outlet of the turbo compressor feeds the gas into a back-fire preventor and from there it passes on to a pressure gage, a test burner, a 1 in. take-off line for auxiliary stereotype equipment, an automatic temperature control mechanism, a fire-check and finally to the burners themselves. The burner elements are submerged in the stereotype metal located within the pots.

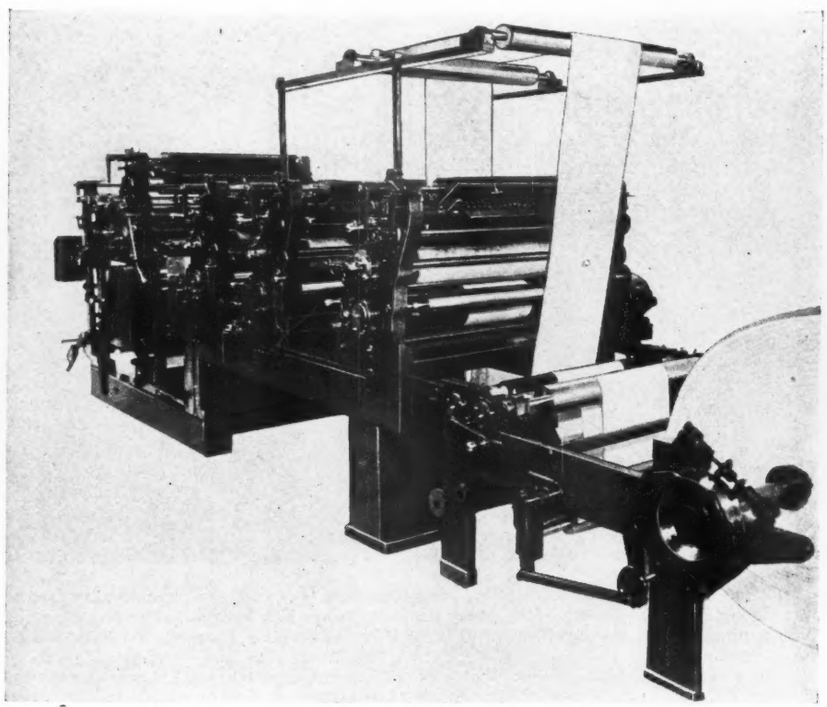


The Bowling Green (O.) *Sentinel Tribune* has installed a new Goss 16 page Unitube press with a full complement of stereotype equipment. Although extra color attachments are not included, the press is so designed that extra color plate cylinders can be added above any or all unit impression cylinders at any time in the future. The press is 32 ft. long, 7 ft. wide, 8 ft. high, and weighs approx. 80,000 lbs. It is equipped with tension plate lock-up, continuous ink feed, and reversible printing couples. The new press is installed in a newly remodeled building which the *Sentinel Tribune* recently acquired. Mechanical operations are under the supervision of John McRae.

NAPL to Feature Machinery Exhibits

One of the highlights of the Fifteenth Annual Convention of the National Association of Photo-Lithographers will be the machinery exhibits. Hotel reservations are already reported to be heavy at the Book-Cadillac, Detroit, where the convention will be held from October 22 to 25, 1947.

Fifty-three exhibit spaces have been assigned to manufacturers. On display will be a 22 x 34 offset press, cameras, film, platemaking equipment, arc lamps, folding machinery, chemicals, offset press rollers and dampening covers, ink, line-up tables, and many more items used in the offset plant. Most of this equipment will be in actual operation. It is expected that actual plates will be made directly on the exhibit floor.



A new high speed web printing press has been announced by the Webendorfer Div. of American Type Founders. This press is designed for the production of business and continuous forms. Illustrated is one of the larger presses. It uses the rubber plate printing process entirely. This machine prints on a 30 in. wide web from a 22 in. cylinder circumference. It consists of three rubber plate printing units, the first of which is reversible; one numbering unit; two punching units; two cross-perforator units; one vertical lengthwise perforator and slitter, and delivers into a center rewinder. The press operates at a maximum speed of 10,000 cylinder r.p.m.

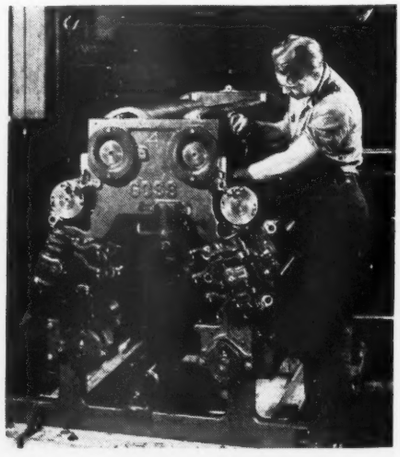
Beveridge Appoints Richardson-Sovde

Richardson-Sovde Co., 503 Fourth Ave., S., Minneapolis, Minn., has been appointed sales representative for Beveridge Paper Co., stereotype mats, in the States of Minnesota, North and South Dakota, effective August 15.

Labor Management Relations Act 1947

MANY printing plant and other Graphic Arts executives will be glad to know there is available an analysis together with simply worded explanation of the Taft-Hartley Labor Management Relations Act which became effective recently. So far as we are able to judge, the Prentice-Hall booklet discusses and explains the act in detail in a non-partisan manner. The booklet was prepared by Prentice-Hall's Research Department, who seem to have used every endeavor to state interpretations, meanings and explanations in as simple language as possible. One of the features of the booklet is *P-H Pilot Chart*, in which are shown in comparative columns the new and the old conditions that exist with the new law and what they meant under the former law.

Booklet consists of 48 pages and cover, size 6 in. by 9 in. Price, single copies, $1; discounts in varying quantities. Order direct from Prentice-Hall, Inc., 70 Fifth Ave., New York 11, N. Y.



The Garrett Press, San Francisco, has replaced its 40-year-old Goss Helix press with a new 12 page Goss Unitube, including a full complement of stereotype equipment. This press has an extra color mechanism designed to operate in conjunction with the unit blanket cylinder and arranged for interchangeability of parts, tension plate lock-up, continuous ink feed, and reversible printing couples. The folder is arranged for delivering regular newspaper or tabloid size products. In addition, a third fold arrangement is provided. The press is 27 ft. long, about 7 ft. wide, and 8 ft. high. Weight of equipment is approx. 68,000 lbs. The Garrett Press is owned by James Garrett, a member and former official of the Pressman's Union.

LETTERS

TO THE EDITOR

Volatile Solvent Toxicity

Dear Editor:

I am an avid reader of your publication and look forward to receiving each issue with its many helpful facts, and assure you that it is thoroughly read from cover to cover. Because of the work I am engaged in, I found especially interesting the leading article in the May issue: *Detergents For Printers*. I know that the authors, Messrs. M. S. Kantrowitz and E. J. Gosnell are both experts and are qualified authorities.

However, in my opinion, a very important phase in the use of these detergents was sketchily presented. I refer to the toxicity of the volatile solvents. This was due, most likely, to space limitations since the listing of the maximum safe concentrations and the reference quoted in Table II represents a great deal of work and is a pretty thorough analysis of the toxicities involved.

But I am afraid that while an engineer or chemist may easily understand such a presentation, the average reader may not take the trouble to digest its true importance. Not because he hasn't the intelligence, but rather because he hasn't the time nor the training.

This brings me to the point. The purpose of this letter is to warn those readers who have overlooked the dangers inherent in the use of these solvents. The average reader will naturally assume that since the Government Printing Office is using benzol or a mixture of benzol and acetone, it is best for removing dried printers' ink from halftones, type, etc., in his own shop. As a matter of fact, some commercial type washes on the market do contain benzol.

Cases of chronic benzol poisoning have occurred because the user was not aware that benzol itself or material containing it, presents a health hazard. Inhalation of concentrated vapors may cause acute, chronic or fatal poisoning. The U. S. Public Health Service has recommended the following caution label be placed on containers of products containing as little as 15% or more of benzol:

WARNING

This product contains more than 15% of benzene (benzol) which is extremely flammable.

HARMFUL VAPOR—POISON

Keep away from heat and open flame.

Keep container closed.

Use with adequate ventilation.

Avoid prolonged or repeated breathing of vapor.

Avoid prolonged or repeated contact with skin.

Moreover, the U. S. Department of Labor, Division of Labor Standards, has recently issued a booklet—the sixth in a series on *Controlling Chemical Hazards*, which gives pertinent facts on benzol. I would recommend that every user of typewash containing benzol should get a copy at once. This booklet states,

"Daily exposures to unsafe concentrations of benzene vapor (more than 50 per million by volume in air) over a prolonged period may so reduce the blood forming functions of the bone marrow as to cause anemia."

I quote further,

"If open evaporation of more than 1 pint of benzene per 50,000 cubic feet of workroom air per 8-hour day occurs, down-draft exhaust ventilation with intake near point of evaporation is required."

Now, you and I know that there is a higher concentration of vapor when a pressman or compositor bends over a form in cleaning it on the press or stone. Have you seen any exhaust ventilators on presses? I have not any doubt that the average shop will have them installed.

Furthermore, the authors of this article on detergents state, "Consideration of the toxicity and irritant properties of the solvent to be used is of prime importance in making a selection. As stated previously, good ventilation during use will eliminate the danger; however, good cross ventilation is sometimes impractical and is more often forgotten once the solvent and its odor become familiar."

I wonder how many pressrooms will still use benzol for cleaning type after they read the following quotation from Public Health Reports Reprint No. *2248—Benzene*, 1941:

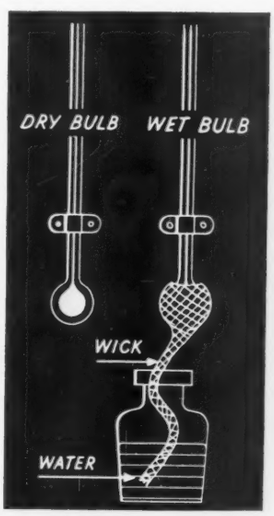
"The poisonous effects of benzene are due to the action on certain body tissues, especially the nerve tissue and that of the blood forming organs. In acute intoxication, it caused depression of the central nervous system; in subacute and chronic poisoning it causes—in addition—damage of the blood, the blood vessels, and bone marrow."

The writer has formulated a compound which is a solution to that problem and will be glad to furnish further information upon request.

Because the danger in the use of benzene cannot be stressed too much, I therefore took the trouble to write, suggesting that your readers get a copy of the booklet No. 6 on benzene recently issued by the Department of Labor in Washington, D. C.

Sincerely,

Alfred A. Jasser, Chemist
Anchor Chemical Corp.



Hygrometer

WIDE variations in the degree of humidity are the causes of many headaches for lithographers. Lithographers know the radical changes they must make in procedure from season to season. The amount of moisture in the air determines the speed of drying for inks, light sensitive coatings, films, plate coatings, and also, to some extent, affects the speed of sensitivity in dichromated coatings.

Among the things that plague the platemaker in conditions of high relative humidity; plate coatings dry more slowly; deep etch coatings develop more rapidly and lead to trouble from coating breakdown; coatings are penetrated by lacquer; lacquer adheres poorly; ton values are changed.

When the surrounding atmosphere is less wet, coatings dry rapidly; plate developing time is prolonged and may lead to insufficient development.

In plants that are not air-conditioned, a hygrometer is an invaluable instrument for tipping off the lithographer when to alter his techniques to compensate for variations in humidity.

The most common form of accurate hygroscope depends upon evaporation of water in a wick around a thermometer bulb. This cooling effect gives a wet bulb reading which differs from a dry bulb reading. With these two readings, relative humidity can be computed from a simple table or a special slide rule supplied with the instrument. Roughly, a 15 deg. difference in the readings is a sign of fairly good working conditions.—Published by courtesy of Harris-Seybold Co. from *Harris Impressions*.

Plant Layout — *Objectives and techniques — Analysis of all elements entering into important undertaking — Consideration of the human element*

By ROBERT I. MILLER*

**Manager, Standardization Div., Curtis Publishing Co., Philadelphia. Abstract of address delivered before ANPA Mechanical Conference, Chicago, June 1947.*

EDITOR'S NOTE:

Although this address was directed primarily to newspaper mechanical and production executives, we feel there is so much practical application of Mr. Miller's message to commercial printing and publishing plants that it should be read and studied by executives of those plants. Anticipating production hindrances means considerable forethought when executives plan their future work-home jointly with the architect and engineer. Mistakes are costly.

IT HAS been my experience that some members of the publishing industry are prone to believe there is little or nothing they can do about improving their layouts. I have heard it said many times that there exists little or no choice in laying out a battery of presses. Therefore, there could be no practical application of the techniques of Plant Layout. All I can say is that because of the stable nature of the product and the few subassemblies involved, the newspaper industry has every opportunity to have an ideal layout as far as building structure permits; and, to no other industry is a proper layout more important. Layout dictates work-flow. Work-flow dictates time. And every progressive newspaperman knows that the time element is the big factor in production.

In discussing Plant Layout, let me divide the subject very simply into three parts: What it is, What it does, and How it does it.

Definition of Plant Layout

First, what is Plant Layout: In defining Plant Layout we must be careful of our terms. It is too often described as the detailed arrangement of equipment for the purpose of efficient operation. This definition is inadequate for it ignores other practical and psychological considerations such as illumination, noise control, ventilation, and color conditioning. I purposely avoid the term "efficient operation" as this term seems to imply maximum utilization of equipment without consideration of the human element. The definition I use in discussing Plant Layout is: Engineering the most effective arrangement of all equipment, and designing any desirable alteration of other physical factors pertaining to the plant.

Objectives of Plant Layout

Second, what can Plant Layout do for you: Let me give you some of the benefits derived from a proper arrangement of your equipment:

Reduction of work-travel.
Reduction of material handling.
Reduction of time of work-in-process.
Increased utilization of labor and equipment.
Reduction of investment in equipment.
Better utilization of floor space.
Reduction of paper waste.
Simplification and reduction of expense of production control.
Reduction of accidents.
Reduction of operator fatigue.
Increased employee morale.

It would be superfluous for me to point out the importance to you of the factors I have named. Unless you have given them proper consideration, it is safe to say that, despite all your efforts, you are operating a plant that is both awkward and wasteful.

Techniques of Plant Layout

Now, how can you improve your plant layout? By a thorough analysis of basic working conditions and the application of modern and better methods of production. There are twelve important elements to be considered:

1. Equipment needed.
2. Arrangement of equipment.
3. Space needed for production centers.
4. Location of departments.
5. Arrangement of service units.
6. Provision for ease of material binding.
7. Consideration for city and state laws and codes.
8. Consideration for employee comfort.
9. Provision for future growth.
10. Time study and process charts.
11. Visualizing the layout.
12. Selling the layout.

Now let us examine these techniques more closely.

In determining equipment requirement you need to know:

1. Maximum and minimum production requirements.
   A long-run production forecast should be determined by the combined judgment of those individuals who share the responsibility of setting page size and number of copies printed.
2. Maximum and minimum hours of work scheduled.
3. Normal production obtained or past performance.
4. Maximum capacity of equipment.
   This is the production that would be acquired if all controllable delays were eliminated. The determination of this figure is secured by time and methods studies. The difference between maximum capacity and normal production obtained will give you a definite numerical value of your efficiency of use-of-equipment.
5. Estimated capacity.
   This figure is obtained by time-studying unnecessary delays and establishing methods that will keep them to a minimum both in quantity and in duration. If this is not done, then the normal production figure must be used in estimating needed equipment.
   It is not unusual to find one department equipped to produce more than another department. It is a waste of equipment and space to have unbalanced departmental capacities. This, of course, also holds true of intra-departmental equipment.

The location and arrangement of individual units should be such that the flow of work will be as nearly as possible in a direct line. This is an axiom of Plant Layout, and its observance is essential to orderly production. For example, work should flow smoothly and directly from linotype to composing, from composing to molding, and from molding to backing.

Other Than Straight-line Design

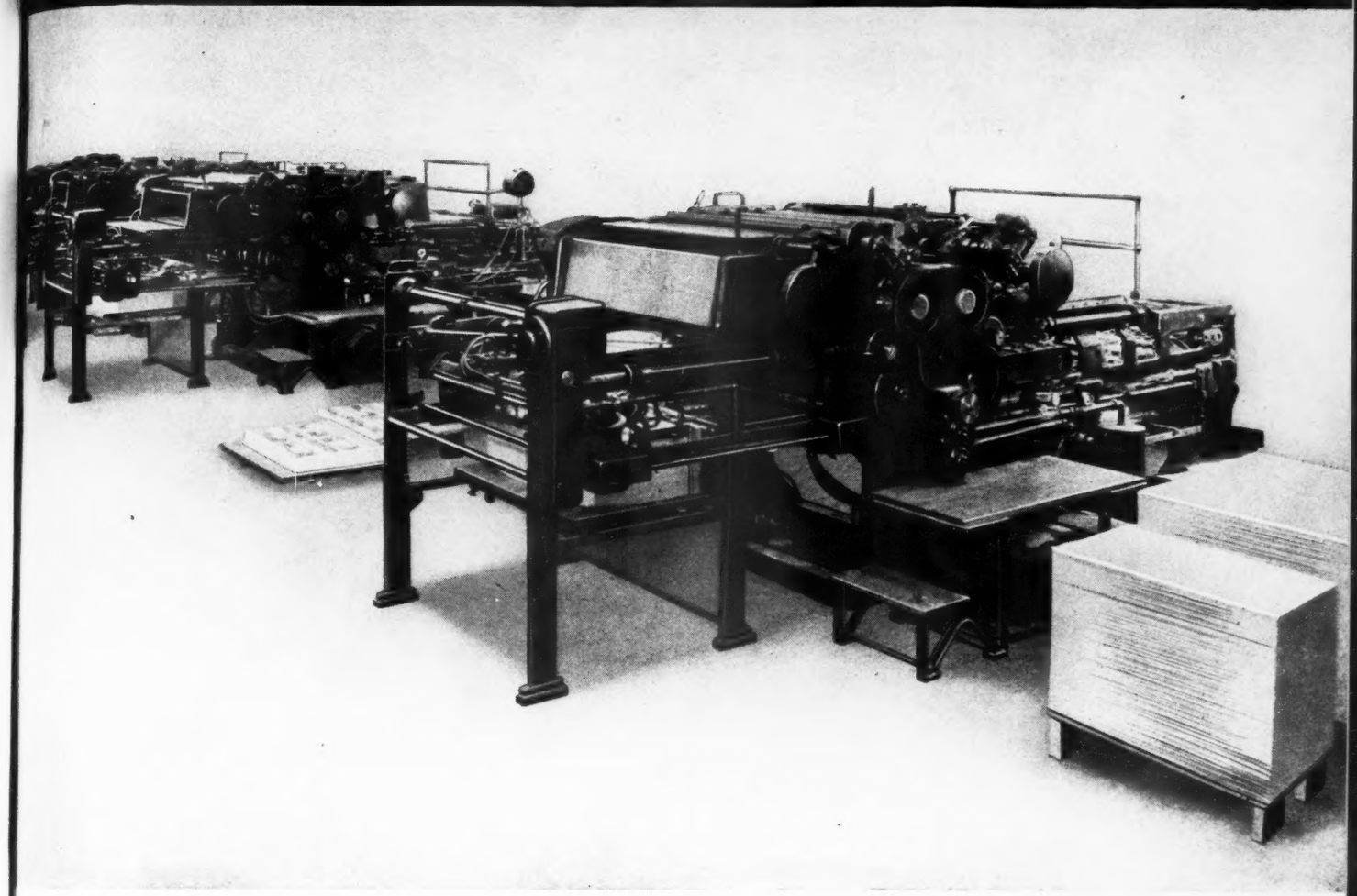
In arranging equipment consideration should be given to other than straight-line design. Any variety of circular, kidney, "U", "E", "L", "H", Duplicate "I", or even odd angle arrangement may be employed to an advantage. This is particularly true of pre-press equipment in order to eliminate criss-crossing and back-tracking. Your best layout may not conform to any given pattern. The important thing is that it be the result of fitting together all production factors in the most effective manner.

Allowing Space for Other Requirements

A production center has been commonly defined as the actual area required for a unit of equipment plus the additional space needed for other require-

(*Continued on Page 64*)

Picture of Mass Production ...



The Cottrell 2-color sheet-fed rotary press.

Colorful printing rolls off this Cottrell press in mass production quantities with individual perfection in register and ink distribution along with lower operating costs.

The Cottrell two-color rotary press operates at speeds up to 6000 sheets per hour and is ideal for all commercial and publication printing . . . a press for the kind of quality and quantity production you like to achieve.

C. B. COTTRELL & SONS CO.
Westerly, Rhode Island
New York: 25 E. 26th St. • Chicago: Daily News Bldg., 400 W. Madison St. • Claybourn Division: 3713 N. Humboldt Ave., Milwaukee, Wis. • Smyth-Horne, Ltd., 13 Bedford Row, London W.C. 1, England

Cottrell

93 YEARS OF GROWING WITH THE PRINTING INDUSTRY

The Linotype Assembler...

How to recognize mechanical troubles and what to do about them

By WM. J. BUTLER

II.

The Assembler Slide The solid chute finger which is adjustable should be set so that an em space of the font being used will just pass between its lower tip and the assembler rails. The distance from this tip to the center of the assembler star shaft should be from 1⅜ in. to 1½ in.

The curve of the solid chute should also tend to guide the matrix toward the center of the assembler star.

The tension on the chute finger should allow it to give noticeably when medium weight and heavy matrices are assembled. If the chute finger tension is too light the heavier matrices will strike the assembled line in the assembling elevator at a point so high that a matrix will occasionally jump out. If the chute finger spring tension is too heavy the matrices will not enter the assembling elevator freely or may even clog or jam before entering.

Be sure the chute finger does not bind either front or back or on its screw and that the only friction exerted on it comes from its own spring.

The assembler slide should be free in its travel both ways. Check its freedom of travel at all points. There is very often a bind between the back of the assembler slide and brake lever caused by the brake lever spring pulling a little off center and twisting the brake lever. If you remove the brake lever and the brake facings, you can file the corners causing the bind, taking care not to spoil those edges which are to make a firm bearing for the brake facings. The assembler slide can bind on the brake release lever when the flat spring at its right end forces the release lever outward, in which case the pressure of the flat spring should be lessened.

When the assembler is almost full of matrices rather than increasing the spring pressure to facilitate the assembler slide return, try to eliminate the need for more pressure by smoothing up the action of the assembler slide. Do not try to overcome the trouble of the assembler slide jumping too far to the left when spacebands or certain matrices are assembled by stiffening the assembler return spring; rather endeavor to improve the entrance of spacebands and matrices into the assembler and stiffen the brake spring.

On the newer machines a coil spring is used to couple the assembler slide to the assembler slide lever link. A similar spring can be applied on older machines equipped with a solid link at this point. When a spring is used there is no chance for the assembler slide to bind at this point.

The edges of the assembler slide contacting the brake facing blocks will wear unevenly according to the length of lines assembled. That section of the assembler slide contacting the brake facings when assembling short lines will show more wear than the remainder of the slide. This is because friction is there when assembling lines of all lengths, but only when assembling longer lines will the remainder of the surface become worn.

This wear causes the assembler slide to become tapered somewhat where it passes between the brake facings so that when the brake and brake trip are set for one end of assembler slide travel, the setting at the other end is incorrect.

When this taper becomes too great there is so much lost motion in the brake trip that there is not enough movement in the brake operating lever to release the brake fully when assembling full length lines. This causes the assembler slide to fail at times to return all the way back to its zero point causing a mix up with the matrices at the beginning of the next line set.

The amount of taper in the assembler slide is discernible by depressing the brake trip by hand till the assembler slide reaches its extreme right position. There should be slight play between trip and brake. If there is not, run the adjusting screw down in the brake trip until there is slight play. Then push the assembler slide to the extreme left and while it is held there by the brake, test the brake trip for play again.

If the play in the brake trip is too great when the assembler slide is at extreme left there is not enough action in brake operating lever (as operated by up and down travel of assembling elevator) to take up this play with enough to spare to release brake lever. In this case the taper must be removed or a new assembler slide installed. Or, more action can be given to the brake release lever as described a little later. If the assembler slide is worn so badly that the brake and brake release cannot be adjusted to the most worn section of the assembler slide, a new assembler slide is in order. If you can adjust the brake and brake release on the most worn section of the assembler slide by installing new or oversize brake facings or turning the old ones to a new face, and can set the brake release adjusting screw so there is slight play between release and brake, dress down the whole assembler slide to the same size as the worn section.

With calipers or micrometer and straightedge, determine where to file these edges to eliminate the taper, making both surfaces smooth and flat as well as parallel at least for that portion of the assembler slide that contacts the brake facings while assembling a full length line.

Brake Operating Lever

More action can be obtained from the brake operating lever when necessary to give extra releasing action to the brake.

File 1/16 in. off the under edge of the brake operating lever at the point where it rests on the assembler slide roll bracket. Be careful to leave untouched the end of the brake operating lever that overhangs the roll bracket. This overhang is contacted by the assembling elevator when raised to its top position to transfer a line of matrices, and gives added movement to the brake operating lever. As the assembling elevator in its down position rests on the brake lever, if much more than 1/16 in. is removed from it the assembler may be lowered enough to bind the assembler slide. The brake should have enough movement to bind the assembler slide when held to the right by its spring and to thoroughly release its pressure when moved to the left through the action of the brake operating

(*Continued on Page 66*)

SHORT CUTS IN MACHINE MAINTENANCE

(Abstracted from address delivered by Gerald I. Fillman, before 1947 PNPA Mechanical Conference).

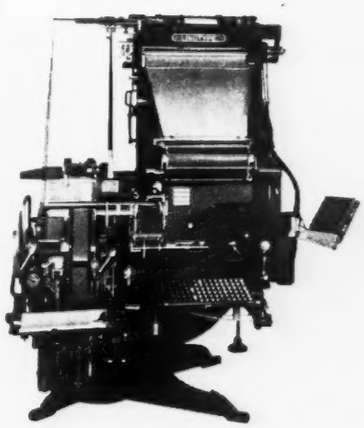
As all machines are kept in operation, through both shifts, daily, Monday through Friday, we never have a dark machine to work on during this period, except emergencies. Therefore, we use as many short cuts as possible to save down time. To mention a few short cuts, we have a set of keyboard cams (45 and spaceband) oiled and cleaned, which we exchange in 10 min. down-time with either front or back. This is done after the first edition. The cleaning and oiling of the cams taken out is done at leisure at the bench. We also have cam rollers, mounted and interchangeable in approximately 5 min. down time. We carry spaceband box, distributor box, second elevator bar, assembled, and similar parts which we exchange with down time never amounting to more than 10 min. Of course, these are not everyday occurrences, but our machines are producing while we are working on repairs at the bench.

HOW TO MEASURE PROGRESS

PROGRESS isn't so elusive. It happens when a Linotype Inspector puts a matrix under a microscope. When you cast a type slug. When the printing press makes an impression. Progress is just a step forward.

When you consider the evolution of the Linotype over the past sixty years, you begin to understand how many steps it takes to mark achievement. Typical of many letters which we receive, the following quotation shows how you, the Linotype user, become the true index of our progress.

"The installation of a new Blue Streak Model 29 has brought about a large saving in our composition. In this day of rounding corners, it now seems almost impossible to turn out our work without it. Our operators speak highly of its ease of operation and we heartily recommend it to anyone planning the addition of this type of equipment to his plant."



LINOTYPE

MERGENTHALER LINOTYPE COMPANY

29 RYERSON STREET, BROOKLYN 5, NEW YORK

Linotype Janson and Spartan Black

Plant Layout

(Continued from Page 60)

ments; the major space considerations being:

Sufficient room for workers.
For trucks to deliver and remove material.
For raw material.
For large material to be placed on or removed from machine.
Room for storage of work completed and awaiting removal.
Place for auxiliary work benches, tools, racks, and the like, where necessary.
Room to get at any part of machine that may need attention while running.
Quick access to safety stops in case of accident or jamming of machine.
Access to machine for inspection, oiling, repairs and removal of any part without removing machine from its position.
Extra space needed because of proximity to walls, columns, stairways, etc.

Knowing the number of each unit of equipment needed and having decided upon the arrangement of each production center, the next step is to consider the location of departments.

The same basic fundamentals apply to the location of departments as to the location of equipment within any given department. The only difference is that you are coordinating groups of equipment instead of single units.

Departments in Natural Operating Sequence

It is impossible to say where departments should be located in relation to one another, unless all factors of production and the limitations imposed by design and construction of the plant are known. However, the general principle is to arrange departments, as nearly as possible, in accordance with their natural sequence of operations. As an obvious example of this, paper storage and the pressroom should be adjacent to the receiving and shipping departments.

Service units include such things as storage, locker, dressing, wash, and machine-repair rooms. Where possible, it is advisable to place wash rooms, stairways, and elevators in the wings of the building. Where wash rooms are placed one above the other, savings in plumbing costs will be effected.

In multiple-story buildings it is advantageous to have service units for each floor. The space allotted to special tools, materials, parts, and the like, should be located as close as possible to where they are to be used.

Material Transportation

Provision for transportation of material and work is one of the major considerations of Plant Layout. The objective of material handling should be the transportation of materials and work from place to place without retrogression, with a minimum of transfers, and in such a manner as to avoid delays, congestion, and unnecessary handling. Some of the considerations necessary in Plant Layout to achieve this are:

Aisles should allow for easy passage of largest loaded truck. If the aisle is long, extra side space should be provided for at intervals to allow passage of trucks going in opposite directions.
Aisle ends should be of ample width to allow complete change in direction of largest loaded truck.
Aisle intersections should allow ample room for right angle turns of largest loaded trucks.
Capacity of elevators should be such that they can handle the heaviest loaded truck.
Doors through which material passes should be equipped with automatic door-openers.
Ramps should be so constructed that the grade will be moderate.
Conveyors and special handling equipment should be used wherever possible.

It is always well to bear in mind that material handling adds nothing to the value of your product, but does increase its cost and length of time required for the processing.

Before any layout is attempted, all legal requirements pertaining to your particular section must be known. There is much variance in the industrial laws and codes of the different states and cities.

The Human Element

Consideration of the human element cannot be over-emphasized in layout plans. The correct combination, coordination, and space allotment of the operating centers are of vital importance, but of even greater importance is the effect of the Plant Layout upon your personnel.

More efficient utilization of equipment and space should never be made at the sacrifice of employee comfort. Careful studies should be made of the proper heat and ventilation. Much attention should be given to proper illumination. Without proper lighting any industrial plant, no matter how new or well-built, is obsolete. All heavy work should be made up or handled on wheeled tables or trucks. Sanitary wash rooms, noise reduction, cheerful color schemes for walls, work benches, and equipment all help to make the plant a more attractive, and therefore more desirable place to work. The influence of Plant Layout on employee morale must never be neglected.

Future needs should be anticipated and planned for in the Plant Layout. The layout should be so constructed that a minimum number of changes will be necessary when additions are made.

In selling the layout, blueprints of the present and proposed layout should be shown with a comparison of the advantages and disadvantages of each. Be sure to itemize all factors; for example, in material handling show the lifting or carrying in foot-pounds and travel-distance required for each transportation of work. Next, compute for each division a summary of all factors, including effect on employee comfort. The final step is to show total effect on the plant and estimated cost of change. If the information thus obtained shows the advisability of making change, it should sell itself, and the only remaining factor for consideration is the scheduling of the change so that it will not interfere with production requirements.

Conclusion

No one has a true concept of Plant Layout until he no longer sees the Plant as separate units of equipment or even as separate departments. Think of your plant as a single production machine; for, not until you accept this concept will you be fully Plant Layout conscious. And not to be Plant Layout conscious is to be hopelessly behind the times.

Use of Quotes

In the July. issue of *Printing Equipment Engineer* there appeared an article entitled: *Booklet Composed by Photo-type setting*. The article was descriptive of the composition of the booklet by Intertype Corporation's photo-typesetting machine. The terms "Fotosetter" and "Intertype Fotosetter" were used without quotation marks. We are informed by Intertype Corporation that the terms "Fotosetter" and "Intertype Fotosetter" are trade-marks adopted by that company and under the provisions of the Trade-Mark Act of 1946 (effective July 5, 1947), should have appeared in quotation marks to indicate legitimate trademarks.

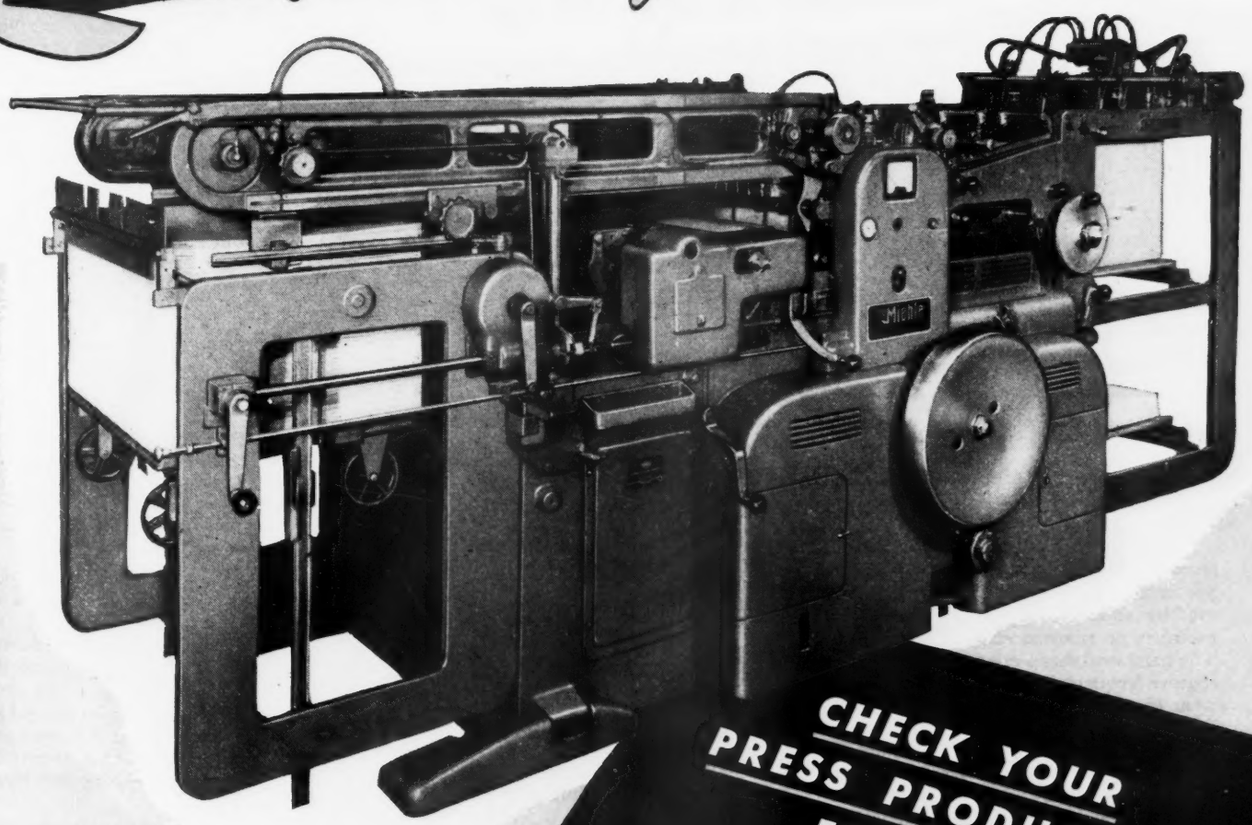
1948 ANPA Conference

The 1948 Mechanical Conference of the American Newspaper Publishers Association will be held at the William Penn Hotel, Pittsburgh, Pa., Monday, Tuesday and Wednesday, July 19, 20 and 21, 1948. Attendance at ANPA mechanical conferences has become so large and machinery exhibits have grown to such proportions that there are only a few hotels in the country with sufficient facilities to care for this conference. The ANPA Mechanical Committee of which J. L. Stackhouse, publisher of the Easton (Pa.) *Express*, is chairman, is considering holding the 1949 mechanical conference in Chicago during the early part of June, 1949.

Printers' Picnic

The employees of Offset Reproductions and F. M. Rapp, Printers, held their annual picnic at Hempstead State Park, L. I., N. Y. on June 7. The feature of the afternoon was a baseball game. Prizes were awarded to members of the winning team. The picnic dinner was given after the ball game.

Look to the years ahead



CHECK YOUR PRESS PRODUCTION EFFICIENCY NOW!

See if your present presses, and those you plan to buy, measure up to top production standards of press performance. High press efficiency is important for profitable production now — and will be absolutely essential in the stiff competitive markets of the years ahead.

An excellent example of modern Miehle high production presses is the Miehle 29 Letterpress. High operating speed is backed by simple adjustments and full accessibility that add up to more actual running time with less time out between jobs for changeover and makeready, and fewer stops after each run has started. Write for complete data on the new Miehle 29 . . . and the other sizes of Miehle Presses you need to get top press production efficiency.

CONDENSED SPECIFICATIONS
MIEHLE 29

Speed Range 2500 to 4500 I. P. H.	**Capacity of Feeder** 34" pile
Sheet Size Minimum 8½ x 11 Maximum 22 x 28	**Capacity of Delivery** 34" pile
Printing Surface Locked in Chase 20¼ x 26 Locked in Bed 20¼ x 27	**Approximate Wt.** (net, including electrical equipment) 10,260 lbs.

MOTORED BY KIMBLE

MIEHLE PRINTING PRESS & MFG. CO.
2011 Hastings St. (14th and Damen)
Chicago 8, Illinois

THE MIEHLE 29 LETTERPRESS
product of years of development

The Harris-Seybold calendar for 1947-48, by Artist T. M. Cleland, is now being distributed, according to H. A. Porter, Vice President in Charge of Sales for the Harris-Seybold Co. The same purely fictitious locale of an imaginary French town in the 18th century as in previous editions, serves as a setting within which to illustrate the title "Homecoming". The entire series of eight pictures, dating back to the 1940-41 calendar, have been prepared especially for reproduction in four-color offset. The calendar was lithographed by Rogers - Kellogg - Stillson Co., New York. Copies of the calendar may be obtained from the Harris-Seybold Company, Cleveland 5, O.

Linotype Assembler

(Continued from Page 62)

lever. The spring tension on the brake is not critical although if too light the assembler slide may jump too far when matrices or spacebands are assembled. The hard steel sharp-edged brake facings require frequent adjustment and quickly wear the assembler slide. Fiber or bakelite blocks are much better. It is not necessary that the brake facings have a sharp edge where they contact the assembler slide. They work better and last longer when they have more contact surface.

The Assembler Star

The assembler star itself should have periodical attention. When worn to the extent of about 1/32 in. at the spoke corners it should be replaced. When the spokes of the star have become worn sufficiently, the matrix lugs may cuff the small detaining plates in the assembling elevator and cause rapid wear on the lower back and front matrix lugs. When inspecting the star, also inspect the detaining plates and the lower left portions of the back and front assembler chute rails to see that they are not worn to such an extent that they will not "cover" the detaining plates. Worn lower lugs on the assembler chute rails will also cause abnormal wear of the lower matrix lugs. When worn at the lower left portion, the lugs of the chute rails (particularly the front) can either be swaged out to extend their life or they should be replaced.

The tension of the assembler star spring and disk is an important matter. The spring should exert just enough tension to throw the matrices to an upright position without hesitancy when assembling a line of em quad matrices and spacebands. Less tension will cause slow assemblage and too much tension may cause matrices to fly out of the assembler or move the assembler slide too far to the left as the matrices enter the assembler. Because the means of lubrication are concealed at the back of the assembler plate, lubrication may be neglected. The spring, disk and gear should be packed with light grease and the oil hole for the shaft should have oil supplied to it sparingly at regular intervals so as not to contaminate matrices.

An important point about the assembler is that the star not be permitted to wear much in excess of 1/32 in. at the corners of the spokes and the friction disk mechanism should be kept properly adjusted to permit slippage of the star under matrix assembling stresses.

One very bad result from the use of worn assembler stars is the tendency to encourage operators to send in tight lines. A slow-speed assembler in which the star wheel travels at a greatly reduced speed is a great improvement over the regular-speed assembler.

Improving Star Tension

The friction drive of the assembler star can be improved if you will dish out the surface of the friction disk to a depth of about 0.010 in. and about 5/8 in. diam. in the center part of the disk surface that comes in contact with the friction pinion (leaving the outer ring of the disk surface to contact the friction pinion) without lubrication. Isolation of the contact of the outer surface of the disk against the pionion will provide much firmer friction with less spring tension. An added advantage is that the tension adjustment will be maintained for a much greater length of time.

Assembling Elevator

Many improvements have been made in the assembling elevator, especially since the automatic quadder was brought out. The quadder made some changes almost necessary. Some of these improvements are an advantage on older machines too, but the older type assembling elevator on a non-quadding machine can be made to function efficiently. The assembler gate when closed should allow about 1/64 in. or less clearance for matrices when assembling.

If the gate has no screws for adjusting this clearance, you will have to pien the assembler gate banking pin head after removing the front half of the assembling elevator. This is the pin that acts as a stop for the gate when the gate spring closes it. Do not try to make this adjustment by placing a liner between the back and front plates of the assembling elevator at the point where they are held together by one large screw, as this will spoil the elevator's alignment with the delivery channel.

The little roll and its pin on the gate are often neglected to the point where there is play in the gate when the gate is closed. This play should be eliminated. If the gate spring is bearing on the gate roll when the gate is closed and the gate is not held firmly against its banking pin, either a new roll pin, roll or both are needed. A fraction of a drop of light oil on the roll pin when the machine is oiled will cause these parts to last indefinitely. The same can be said for both ends of the gate hinge pin, although too much oil here will cause plenty of trouble.

The tip on the end of the long duplex rail often becomes bent and should be kept straight for nice delivery. The tip on the short duplex rail when pushed in for use must come close enough to the assembler chute front rail or on some machines that section of front rail which is riveted to the assembler cover to prevent thin matrices catching between the short duplex rail and the assembler chute front rail.

The matrix retaining pawl on the gate, like the one on the back half of the assembling elevator, should be free to move with firm spring pressure to hold the pawls against their stop pins. The pins on which the matrix retaining pawls pivot sometimes wear enough to allow the pawl's springs to force them inward far enough to bind the matrices when assembling. These pins should be replaced and pawls fitted so they are flush with assembling elevator back rail and assembling elevator gate.

The fibre matrix buffer in the assembling elevator front plate has a great deal to do with the life of the matrices. It also holds the matrices on the end of the line upright when the gate is open.

If it is allowed to wear badly, all the work falls on the steel matrix buffer on the back plate. This causes excess wear on the lower back matrix lug. A good stock of fiber front buffers is good matrix insurance. After a new one is installed, check to see that it is flush with or a few thousandths less than the inside face of the assembler front plate. If the fiber is too thick, it will prevent spacebands dropping down to correct position in the assembling elevator.

(Concluded)

Is it true

what they say about type metal?

▶ "It might have been, son; it no longer is!

There are differences in type metal similar to those in paper, ink or raised biscuits. For each kind of product there is a typical manufacturing process and substantially the same materials. But there is a difference in the results!

Here's a hair-line rule on a 2-point body made of **Federated Process** type metal. You can roll it up like a ribbon. An ordinary type metal rule will snap before it bends very far."

The answer here is ductility. With all its other qualities Federated Process metal has superlative ductility. Ductility is not something you dig out of a hole in the ground. It's a quality that you engineer into type metal by science and skill, and only with the most extensive manufacturing facilities. It belies the old idea that "type metal is just type metal."

Federated Metals Division, American Smelting and Refining Co., 120 Broadway, New York 5, N. Y.

Federated **METALS DIVISION**

AMERICAN SMELTING AND REFINING COMPANY

Federated first in the non ferrous field FMD

JMLCO F-017

Organize for Rotogravure Research to Improve the Process

A group of business and production executives from representative companies engaged in rotogravure printing, processing, and publishing, met at the Lake Shore Hotel, Cleveland, on Thursday, July 10 to complete the organization and proceed with the incorporation of Gravure Research, Inc. It was decided at this meeting to incorporate as a non-profit corporation under the laws of the State of Illinois. Proposed by-laws were discussed and amended and qualifications for membership were determined.

Directors are: M. George Martin, President and the following: Len S. Pinover, C. J. Murray, M. J. Tiernan, Winfred Isom, James V. Noel and W. H. James.

It is proposed that the program of rotogravure research extend over a five-year period, the work to be conducted at Battelle Memorial Institute in Columbus, O. One of the first major objectives of the research program would be a study of the improvement of carbon tissue and standardization of its preparation and use. Other problems would be attacked in sequence.

It is expected that a further meeting to complete organization and incorporation will be held at an early date.

Those attending the Cleveland meeting, shown in the picture above are: (First row, left to right): H. J. Mullen, Vice President and General Manager, Standard Gravure, Louisville, Ky.; R. H. Simpson, Production Manager, C. T. Dearing Printing Co., Louisville, Ky.; M. George Martin, Production Manager, Standard Gravure, Louisville, Ky.; James V. Noel, Vice President, Cerre, Inc., Detroit; Len S. Pinover, Vice President, Intaglio Service, New York; C. J. Murray, Rotogravure Plant Manager, Philadelphia *Inquirer*. (Second row, left to right): Winfred Isom, Supt. of Rotogravure, R. R. Donnelley & Sons, Chicago; John W. Park, Production Manager, Chicago *Tribune;* J. Homer Winkler, Technical Advisor, Graphic Arts Div., Battelle Memorial Institute, Columbus, O.; M. J. Tiernan, Plant Manager, Art Gravure Corp., Cleveland; James F. Ehrman, Director of Printing, *This Week* magazine, New York. (Third row, left to right): W. H. James, Assistant to Manager, New York *Daily News;* R. Hazzard, Superintendent, Cerre, Inc., Detroit; Samuel R. Wells, Attorney of Peter, Heyburn & Marshall, Louisville, Ky.; Harold D. Ross, Production Manager, Kable Bros. Co., Mt. Morris, Ill.

Newspaper Plates *produced by typewriter-like machines, Fototype letters and printed direct from the photo-engraved magnesium plate*

ANNOUNCEMENT was made in the daily press and other publications during July of a process for composing type matter on IBM typewriters and making the printing plates of photo-engraved magnesium for newspaper printing. Briefly, the process consists of composing the body type matter on IBM electromatic proportional spacing typewriter-like machines. Makeup of the newspaper page is done in two ways. Either a complete page pasteup can be made and shot for a page plate, or the copy can be photographed in takes and stripped on the photo-engraver's glass. The latter method permits greatest flexibility due to late copy changes. After the page pasteup or the flat containing the negatives has been completed, it goes through the usual photo-engraving process except that the page is etched on a magnesium plate.

The completed page plate is then put into a three-roller plate-curving machine where it is formed into semi-cylindrical or tubular shape. It is then mounted by means of Scotch tape on a dummy plate or shell (also magnesium) both of which equal the thickness of the standard rotary press stereotype plate. The plates are mounted on the cylinders of existing presses. A special press is not required. From this point on, the printing operation is similar to that employed when using regular curved stereotype plates.

To further installation of the process, The William J. Higgins Co. (New York) has been organized. John H. Perry, jr., is chairman of the board; Farwell Perry (a brother) is president; Wm. J. Higgins is executive vice president. The Perry brothers are sons of John H. Perry, sr., publisher of a group of daily and weekly newspapers in Florida; he is also president of Western Newspaper Union.

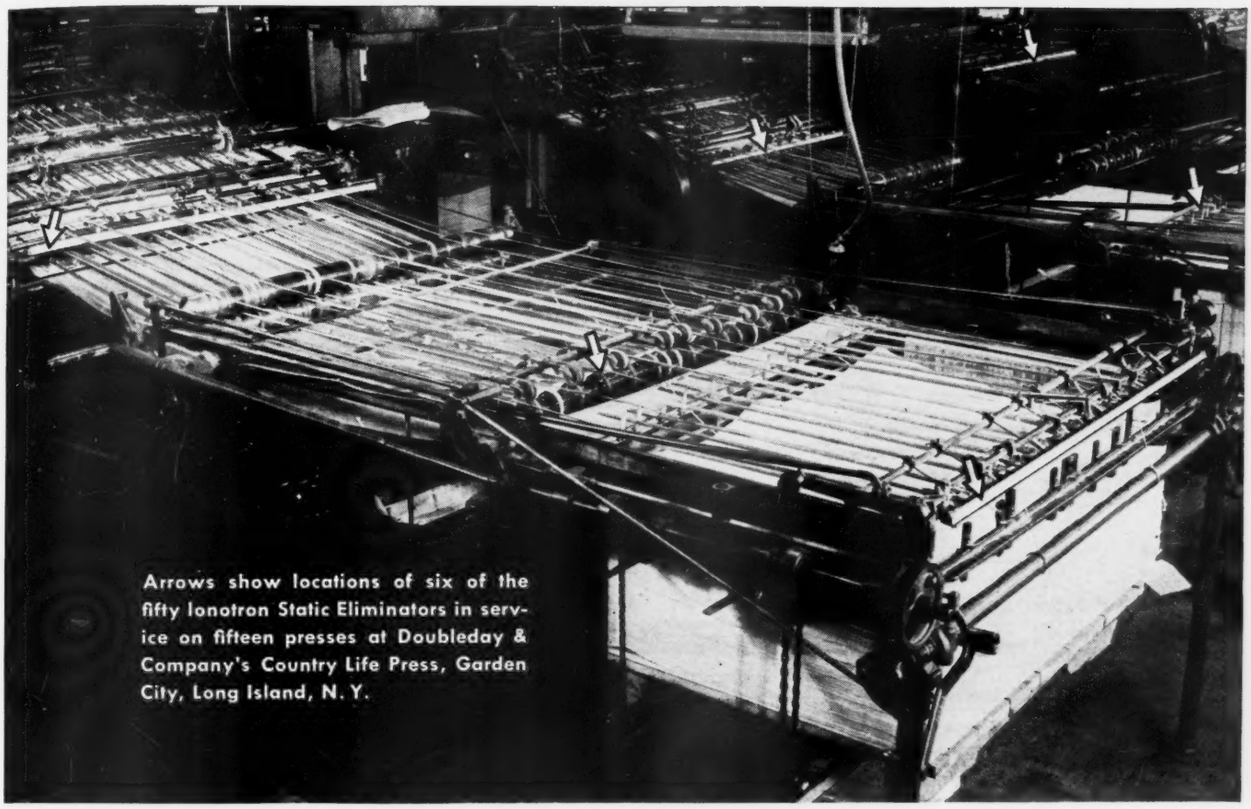
About a year ago, research was commenced at the Perry plant in Ocala, Fla. with actual printing being done in the Leesburg (Fla.) *Commercial*.

As has been stated above, IBM Electromatic Proportional Spacing Typewriters have been used in composing the body type matter. Two girls do the typing, according to report. It is anticipated that automatic equi-distant line-length typewriters will be available before long. These machines, it is reported, will eliminate the necessity for typing lines twice in order to obtain equi-distant width as is necessary at present.

Display type and headings have been obtained by the use of Fototype letters. These letters (obtainable in all latest type faces and in all sizes) are printed in black on white cardboard cut to proper size. They are assembled in a stick by hand and are fastened together with adhesive tape before being attached to the type layout; or they may be photographed and the negative stripped in on the flat. It is reported that before long a display typewriter will be available on which headings or display matter approx. 24 pt. face can be typed.

At present news matter is produced in 12 pt. type size in 18 pica column width. The layout or flat is reduced approx.

NO STATIC TROUBLES HERE!



Arrows show locations of six of the fifty Ionotron Static Eliminators in service on fifteen presses at Doubleday & Company's Country Life Press, Garden City, Long Island, N. Y.

New method of eliminating static is highly effective, continuous, simple

Recently the United States Radium Corporation developed a means of employing continuous alpha radiation to overcome static problems on printing presses and other equipment. Alpha rays ionize air, making it conductive to electricity. U. S. Radium engineers have produced a unit — called the Ionotron Static Eliminator* — which uses this principle to eliminate static problems by continuously conducting charges to ground as they accumulate.

There are no moving parts — no contact with presswork — no accessory apparatus. The Ionotron requires no power connection and no maintenance other than occasional wiping to remove dust or dirt. There is no operating cost, and the action of the Ionotron is permanent.

Valuable in many ways, in many applications

With Ionotron Static Eliminators installed, sheet control is improved in feeders. Paper delivers properly. Jogging is uniform. Fire hazards are reduced. Often presses can be run at higher speeds, with fewer stoppages and less waste. Pressmen and operators can work in greater comfort, without excessive heat from gas bars, without danger of shock, and without concern about static problems.

The Ionotron reduces static charges in paper, foil, fabric, and other materials. It is especially valuable in printing acetate, cellophane, or lightweight stocks.

U.S. RADIUM

IONOTRON

Static ELIMINATOR

Units can be furnished in proper dimensions for rotary, flat bed, offset, or roto presses and for sheeters. The cost of an Ionotron, installed, is low in comparison with the savings it achieves.

Send coupon for details

To get further information about the use of Ionotron Static Eliminators on the types of equipment you are using, fill in and mail the coupon below.

DEPT. 18, U. S. RADIUM CORP.
535 Pearl Street
New York 7, N. Y.

☐ Please send further information about the Ionotron Static Eliminator and its application to printing equipment.

☐ We should like a quotation on Ionotron units for use on ☐ presses ☐ sheeters ☐ other printing equipment. Please send your printing questionnaire for our use in supplying complete information on which to base your quotation.

NAME .....

TITLE .....

COMPANY .....

CITY..... **STATE**.....

one-third thus giving approx. 8 pt. type face in 12 pica column.

Most of the local advertising is produced on the typewriters and with Fototype letters. There are exceptions, however, in the case of local advertisers who insist on regulation type and cut reproduction. These are proofed in the regular way to size and are either pasted in the layouts or stripped in on the glass flat.

For the purposes of this method, the Perrys have utilized magnesium photo-engraving plate stock rather than the conventional zinc plate. The plate weighs about 1 lb. In the hands of a competent photo-engraver the etching time is shorter than zinc.

According to report, it will be necessary to do little if any routing in the open spaces in the plates, because hard packing can be used on the press.

IN the Higgins-Perry method for producing photo-engraved magnesium plates for newspaper printing, the conventional composing room (composing machines and makeup tables) largely is eliminated. In lieu of the usual composing room, the necessary number of typewriter-like machines and tables from which to paste up the copy for photographing are used to complete the pages.

The conventional stereotype room is eliminated entirely since the magnesium plate is curved in a three-roller forming machine to fit a saddle or dummy (also of magnesium); both the plate and the saddle equal the thickness of a standard stereo plate which is mounted on existing presses and printed from direct.

In the skilled trades, the services of the photo-engraver and the pressman still are required.

It is claimed that production costs will be greatly reduced by this method; it is also claimed that less floor space (composing and stereotype departments) will be required to produce newspapers.

While it is intended to eliminate the usual composing room it remains to be seen whether or not advertisers generally will be satisfied with typewriter-like type matter. Perhaps a combination of regular type and illustrative proofs and the typewriter-like composition will be used for advertisers.

In 1945-46 a number of newspapers in various parts of the country were produced for short periods by means of both Varityper and IBM machines and photo-engraved zinc plates. Apparently, at that time, it was necessary to rout out all of the non-printing areas in the zinc plate because of the soft packing used on the press cylinders. (See February 1946 issue of *Printing Equipment Engineer.*)

Conference Dates

(with organization names and principal officers.)

ANPA Mechanical Conference—William Penn Hotel, Pittsburgh, Pa., July 19, 20 and 21, 1948. J. L. Stackhouse, Chairman, Easton (Pa.) *Express;* Walter E. Wines, Manager, ANPA Mechanical Dept., 370 Lexington Ave., New York 17, N. Y.

Great Lakes Newspaper Mechanical Conference— Pantlind Hotel, Grand Rapids, Mich., Oct. 26, 27, 28. President Deo A. Padgett, Composing Room Supt., Cleveland *Plain Dealer;* Secretary Al. P. Oberg, Composing Room Supt., Flint (Mich.) *Journal.*

Illinois Newspaper Mechanical Conference—Hotel Jefferson, Peoria, Ill., October 11, 12. President, Alex Messengale, Peoria Newspapers, Inc., Peoria, Ill.; Secretary, Howard Colton, *Daily Pantagraph,* Bloomington, Ill.

International Association of Printing House Craftsmen — Grand Union Hotel, Saratoga Springs, N. Y., Aug. 31, Sept. 1, 2, 3. Wm. H. Griffin, President, Griffin Bros., 447 Sansome St., San Francisco, Calif.; Secretary, Pearl E. Oldt, 702 Griswold St., S. E., Grand Rapids 2, Mich.

International Trade Composition Association — Book - Cadillac Hotel, Detroit, Mich., Aug. 28, 29, 30. Frank M. Sherman, Executive-Secretary, 1015 Chestnut St., Philadelphia 7, Pa.

Iowa Daily Newspaper Mechanical Conference—Russell-Lamson Hotel, Waterloo, Ia., May 15, 16 and 17, 1948. President, Ed. C. Funk, composing room foreman, Waterloo, (Ia.) *Daily Courier;* Secretary-Treasurer, Paul Kamler, mechanical supt., Clinton (Ia.) *Herald.*

Lithographers National Association—W. Floyd Maxwell, Executive Director, 420 Lexington Ave., New York 17, N. Y.

National Association of Photo Lithographers — Book - Cadillac Hotel, Detroit, Mich., Oct. 22, 23, 24 and 25. Walter Soderstrom, Executive Secretary, 1776 Broadway, New York 19, N. Y.

National Graphic Arts Education Association—Byron G. Culver, president; Fred J. Hartman, educational director, 719 Fifteenth St., N. W., Washington 5, D. C.

National Printing Equipment Association, Inc. — French Lick Springs Hotel, French Lick, Ind., Sept. 27, 1947. James E. Bennet, Secretary, 140 Nassau St., New York 7, N. Y.

New England Mechanical Conference—Hotel Statler, Boston, Mass., Nov. 8 and 9, 1947. President, Wm. F. Madden, Composing Room Supt., Worcester, (Mass.) *Telegram-Gazette.* Walter C. Crighton, Secretary-Treasurer, New London (Conn.) *Day.*

New Jersey Press Association Mechanical Conference—1948 Conference tentatively to be held in Atlantic City, N. J., in June. Hotel and date to be announced later. President Neal E. Dyer, Mechanical Supt., Camden (N.J.) *Courier-Post.*

Northwest Mechanical Conference — President Charles N. Bertram, Pressroom Supt., St. Paul (Minn.) *Dispatch and Pioneer Press.* Vernon Eck, Secretary, 3725 48th Ave. S., Minneapolis 6, Minn.

Pacific Newspaper Mechanical Conference — Fairmont Hotel, San Francisco, May 1, 2 and 3, 1948. President J. W. Fitzsimmons, San Francisco (Calif.) *Call-Bulletin;* Secretary for the North, Edw. N. Conley, color press foreman, San Francisco *Chronicle;* Secretary for the South, Fred J. Moyer, Los Angeles, *Daily News.*

PNPA Mechanical Conference — Benjamin Franklin Hotel, Philadelphia, Pa., April 9 and 10. William N. Hardy, Manager, PNPA, 209-213 Telegraph Bldg., Harrisburg, Penna.

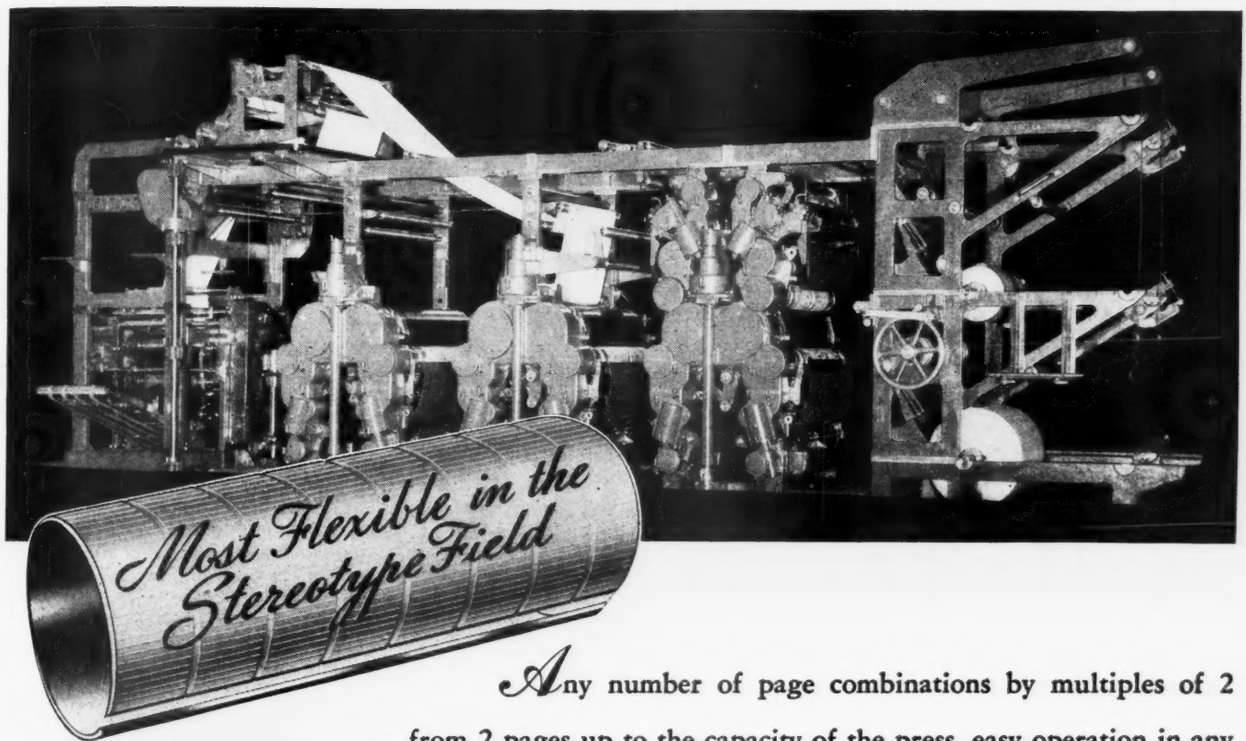
Printing Industry of America — French Lick Springs Hotel, French Lick, Ind. Sept. 22, 23, 24 and 25. James R. Brackett, General Manager, 719 Fifteenth St., N. W., Washington, D. C.

SNPA (Eastern Div.) Mechanical Conference — Buena Vista Hotel, Biloxi, Miss., October 6 and 7. Walter C. Johnson, Manager SNPA, P. O. Box 1569, Chattanooga 1, Tenn. Chairman Executive Committee, I. J. Gardner, jr., Composing Room Supt., Chattanooga (Tenn.) *Times.*

SNPA (Western Division) Mechanical Conference — February 18, 1948. Location to be selected later. Chairman, W. F. Thompson, Austin (Tex.) *American-Statesman.* Secretary, C. W. Tabb, 723 Texas Bank Bldg., Dallas, Tex.

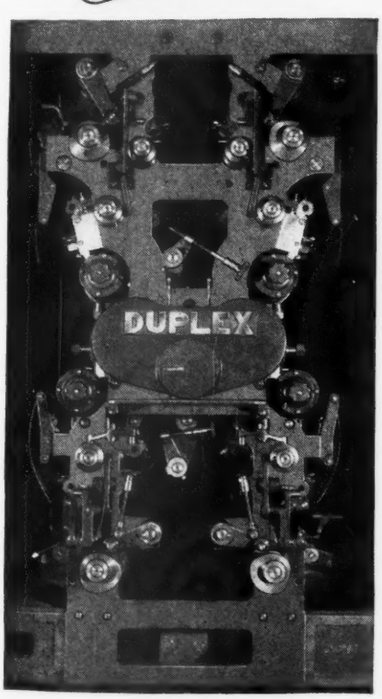
DUPLEX

UNITUBULAR PRESS



Any number of page combinations by multiples of 2 from 2 pages up to the capacity of the press, easy operation in any unit and folder combination, and lower cost at greater production are some of the many advantages of the Duplex Unitubular Press.

Unitubulars are tailored to fit available space of any individual newspaper plant. Flexibility is the major thought in the design of the Pioneering Duplex line of presses that ranges from Flat Bed to large Metropolitan Semi-Cylindrical Units. Regardless of your problem, the Duplex Engineers are prepared to help you solve it. Behind them lies over 60 years of press development and experience, during which time Duplex originated and patented every standard type of newspaper press in use today.



Plating side of a Unitubular Unit equipped with double color cylinder unit

THE DUPLEX PRINTING PRESS COMPANY

Builders of the World's Finest Newspaper Presses

BATTLE CREEK, MICHIGAN

77 W. Washinton St., Chicago — 500 5th Ave., New York

Cooperation

by and Between the Composing Room and Newspaper Advertising Dept.

THE Southern Newspaper Publishers Association held an Advertising Clinic in Atlanta, Ga., on June 7 and 8. One of the outstanding features of the clinic was the address delivered by Luther Wright, Mechanical Superintendent of the New Orleans *Item*. The topic of his address was *What Cooperation Can the Mechanical Departments Render and What Restrictions Can the Advertising Department Reasonably Ask the Mechanical Departments to Observe?*

That's a rather long title for an address, isn't it? Before going any further with comment upon Mr. Wright's address, we want to observe that the title was suggested and the invitation to speak were extended by sponsors of the SNPA meeting. It is an indication that management and business executives of newspapers are becoming conscious of the need for close cooperation by and between all departments concerned with newspaper advertising production.

Mr. Wright enumerated the reasons for the awareness of newspaper executives for cooperation as follows: (1) Increasing production costs, (2) Decreasing availability of manpower, (3) The improving but not yet normal availability of equipment and supplies, and (4) In many instances earlier first editions on afternoon newspapers in order to meet stepped-up bus and train schedules.

The speaker stated he was glad to accept this assignment of speaking before the advertising executives because they realize the need for close cooperation. He stated that over a long period of years he had attended many mechanical conferences, at which the real problems of the mechanical executives have not been discussed on the conference floor. To illustrate, he explained that the usual discussions revolved around such topics as (1) What method is best for anchoring cuts? (2) What systems are used for marking ad copy? and (3) What method is best for handling classified steel cutoff rules? He then explained that at off-conference session times executives gathered in "bull" sessions little groups in the hotel lobbies or in the bedrooms. At these unofficial meetings the most prevalent question is "Does your advertising department play ball with you?" or "Does the advertising department give you decent layouts or does it just throw a batch of scratched-up paper at you and expect you to produce a masterpiece at the end of the current shift?"

Mr. Wright asserted that there must be closer cooperation between the advertising and mechanical departments. "If we are to serve our papers to the best of our ability," said he, "all of us must forget there ever was such a thing as the ancient and (dis) honorable art of buck-passing. We must work as a team."

He enumerated the first and most important essentials which consist of giving better service to the advertiser by (1) Getting advertisers' proofs out promptly. (2) We should see that ads appear in all editions complete with all cuts laid in proper position and the ads should be correct typographically, (3) We should query the store or advertising department when apparent discrepancies arise. (4) We should take every precaution to get from every cut its utmost in reproductive qualities, and (5) In our contacts with the account we should be courteous and businesslike, referring the account politely to the advertising department when a complaint or request occurs which is beyond our control.

With respect to that section of the topic which refers to restrictions the advertising department must ask the composing room to observe, Mr. Wright presented a list of the most common snags which the mechanical departments encounter. (See Mr. Wright's compilation in the accompanying box.) He explained that the list had been composed and printed and passed to the firms' advertising departments. He called specific attention to the statement printed at the bottom of the list of Twelve Production Checks which reads as follows: "Prepared in the composing room of the New Orleans *Item* in a desire to cooperate with advertisers and produce well-printed, accurate, effective ads in a minimum of time."

"One of the greatest problems of the mechanical departments," continued Mr. Wright, "is unavailability of enough extra printers to handle peak loads in the time allowed. One of the most co-

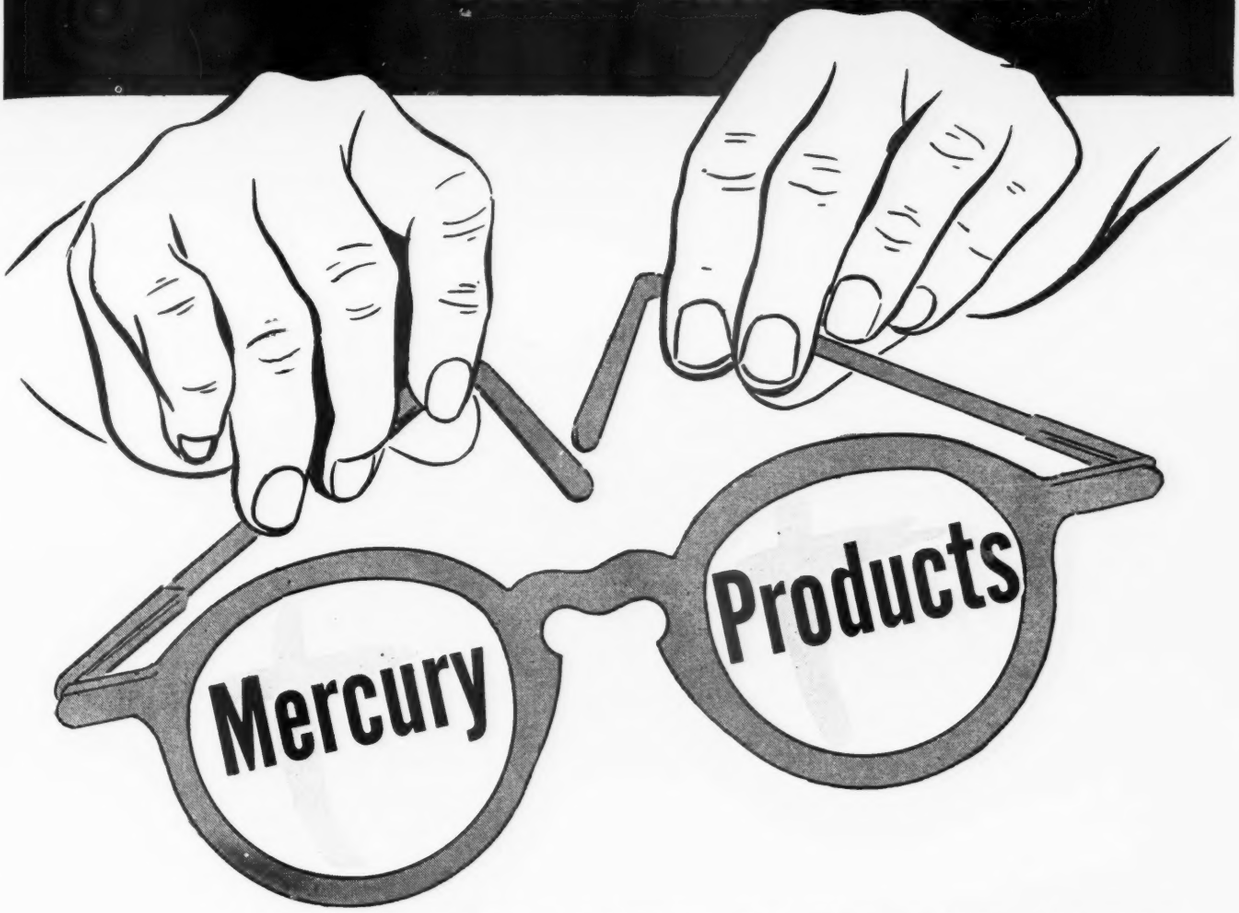
12 Production Checks

In Preparing a Newspaper Advertisement

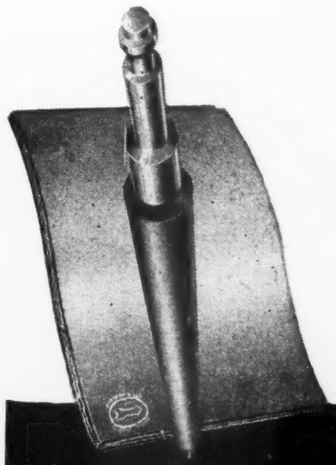
1. Is my firm name on the copy, layout, art and mats?
2. What date is the ad to run? Is this date plainly marked on the layout as well as the insertion order? Does the numeral correspond with the day of the week? Does the date on the layout correspond with the date on the insertion order? Check all dates thoroughly!
3. What size is the advertisement to be? Be positive that the size ordered corresponds with the layout. Be positive that the size shown on the layout corresponds with the size shown on the insertion order.
4. Are all drawings and other units here? Check all units against the layout and copy.
5. Are the mats, cuts and other units the same size as is called for on the layout? If the mat service has several sizes of an illustration be positive that the mat you send to the paper corresponds with the illustration you have pasted on, or drawn on the layout!
6. Did I specify on layout, copy and art exactly what is wanted? If art is wanted same size—mark it SS. Do not take it for granted that the engraver will know what you want.
7. Will the copy, when set in type size indicated, over-fill or under-fill the space allowed for it? Give thought to this before having material set, to avoid necessity of re-sets for size after proof is shown.
8. Have I properly keyed all copy accurately so that the printer will place the proper block of copy in its proper place in the ad?
9. Have I made all prices clear and understandable? Shoes may be priced at $4.00 or $40.00 and the printer is in no position to judge from descriptive copy what was intended.
10. Have I indicated clearly on the layout the exact cut that is to be placed in the exact position in the ad? The use of a rough circle to indicate the position of a shoe is not clear. There may be several shoe cuts and, again, the printer is not in position to follow accurately the descriptive matter and place the cut by the description.
11. Have I checked all art to determine its reproductive quality and if it will scale to size indicated? If proper retouching is not done to bring out sharp contrasts you will get bad newspaper reproduction or if the art is not properly scaled you will get a wrong size cut.
12. Place yourself in the position of the people who are going to have to follow your instructions. Then check all instructions from this viewpoint. Do not release material until you feel you have made all instructions clear and easily understandable.

(Prepared in the composing room of the *New Orleans Item* in a desire to co-operate with advertisers and produce well-printed, accurate, attractive ads in a minimum of time.)

If you are looking for rollers and blankets



Seeing is believing! See for yourself how Mercury Rollers and Blankets lower production costs and increase the satisfaction of your customers. You get better make-ready with these accessories because their diameters never vary, and because the blankets fit smoothly and taut, with never too much or too little stretch. Mercury Rollers and Blankets will not swell. Their surfaces are exceptionally resistant to abrasion. They are built for heavy duty use, and laboratory tests prove they will stand up at speeds actually *higher* than those attained by even the fastest presses available today. These are truly the products of tomorrow.



RAPID ROLLER COMPANY

D. M. RAPPORT, Pres. Federal at 26th Street CHICAGO

operative acts of the advertising department is to try to get the accounts to submit ad copy as soon before insertion date as possible and not to demand proof at the end of the shift. To have copy in the composing room that can be worked on between loads is a great advantage. However, if an ad is submitted on a Monday afternoon, even though it is not to be published until the following Monday, no relief or advantage is gained if the account of the salesman is yelling for a proof on Tuesday morning.

"On the *Item* we are doing something that we think is paying dividends. When a new representative is added to the advertising department's staff, he is turned over to me for a week. He stays with me full time. As various problems arise and are handled, I explain to him in detail just what was involved and why it has been handled in a certain manner. He is allowed to roam at will through the various mechanical departments, asking questions as to what is being done and why. After a week's lapse of time, he knows a great deal about what goes on in the mechanical departments. Then when he contacts his accounts he is in a position to answer questions intelligently. With respect to the part of his work in which the mechanical departments are involved, he certainly knows how to handle his work with increased efficiency and consideration."

After the conclusion of his address, the production checks were discussed.

New! NO. 05 VANDERCOOK PROOF PRESS

automatic inking . . . 20 proofs a minute

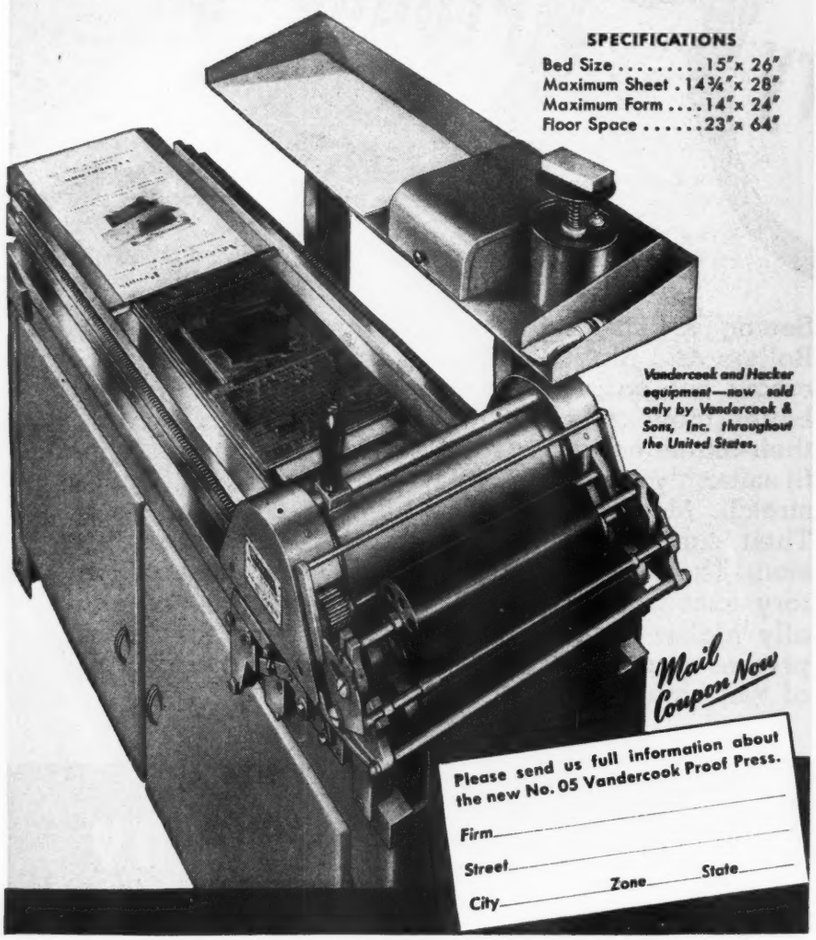
This latest Vandercook is especially suitable for galley proofs of machine composition and made-up pages. Gives good proofs of halftones. Easy to operate, safe and foolproof.

VANDERCOOK PREMAKEREADY EQUIPMENT

VANDERCOOK & SONS, INC.

General Offices: 914 N. Kilpatrick Avenue Chicago 51, Illinois

SPECIFICATIONS
Bed Size . . . . . 15″ x 26″
Maximum Sheet . 14¾″ x 28″
Maximum Form . . . . 14″ x 24″
Floor Space . . . . . 23″ x 64″



Vandercook and Hacker equipment—now sold only by Vandercook & Sons, Inc. throughout the United States.

Mail Coupon Now

Please send us full information about the new No. 05 Vandercook Proof Press.

Firm_____

Street_____

City_____ Zone_____ State_____

SNPA (Eastern) Conference

The Southern Newspaper Mechanical Conference (Eastern Division) will be held October 6 and 7, 1947, at the Buena Vista Hotel, Biloxi, Miss. Preparation of the program is in charge of I. J. Gardner, Jr., Composing Room Foreman of the Chattanooga (Tenn.) *Times*, who is chairman of the Executive Committee. All mechanical department executives in the Eastern Division are invited to submit topics. These can be sent directly to Mr. Gardner, c/o the Chattanooga *Times*, or to the SNPA Headquarters Office, P. O. Box 1569, Chattanooga, Tenn.

The personnel of the Eastern Conference Committee consists of Chairman Gardner; H. R. Capps, Sr., Jacksonville (Fla.) *Times-Union*; Henry M. Duke, Charleston (S. C.) *Post & News-Courier*; Harry Wilson, Birmingham (Ala.) *News & Age-Herald*; A. D. Peoples, Raleigh (N. C.) *News & Observer*; John C. Steele, Louisville (Ky.) *Courier-Journal* and the *Times*; Luther Wright, New Orleans (La.) *Item*; A. M. Brice, Miami (Fla.) *Daily-News*; R. J. Walker, Atlanta (Ga.) *Constitution*.

Appointed Distributor

The Thomas M. Dolan Co., 55 W. 42nd St., New York, N. Y. has been appointed national and international distributors of Dayco newspaper rollers and allied products manufactured by the Dayton Rubber Co. Mr. Dolan, formerly with Dayton Rubber, is owner and general manager of the newly formed company which specializes in serving the newspaper field.

Thomas M. Dolan is appointed national and international distributor for Dayton Rubber Co.

Printing Education Conference

The 22nd annual conference on Printing Education of the National Graphic Arts Education Association was held at the Morrison Hotel, Chicago on June 16, 17 and 18. The conference advanced the national program of education for the printing industry. A registration of 332, representing 17 states, made the conference the largest ever held dealing specifically with printing education as carried on by the organized educational system of the nation.

The keynote address *The Importance of Printing* was delivered by James J. Rudisill, president and treasurer, Rudisill and Co. of Lancaster, Pa.,

Patents

For The Graphic Arts Field

Covering patents issued June 3, June 10, June 17, June 24.

All new patents for the Graphic Arts are reported exclusively for Printing Equipment Engineer by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issuing each week. Printing Equipment Engineer is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating

2,422,996. BOOK COVER APPLYING AND GLUING MECHANISM includes a timing mechanism and an endless conveyor for supporting a number of books with their backs exposed. Abutments on the convevor at spaced points engage one end of the books. The shaft of the timing mechanism carries a timing wheel with its periphery arranged tangentially to the backs of the books, moving them through an arc of 180°. A pair of cover-carrier wheels are also mounted on the shaft of the timing mechanism, one on either side of the timing wheel, and stop lugs on these cover-carrier wheels engage forward edges of covers. A gluing mechanism has a pair of glue applying rollers which apply parallel rows of glue to covers. The speed of the driving shafts of the glue mechanism is synchronized with the timing mechanism. Endless belts hold covers in position upon the cover-carrier wheels prior to mounting the covers upon the exposed backs of the books by means of the timing wheel which has equally spaced drip grooves in its outer periphery to receive glue drippings from rearward edges of books. Gluing wheels are automatically moved away from timing mechanism should it be rotated without covers mounted on it for gluing. Invented by Elmer E. Wendt, Hinsdale, Ill. Assigned to W. F. Hall Printing Co., Chicago, Ill. Application September 1, 1944. 17 claims.

2,422,629. PAPER SHEET HANDLING MECHANISM. See under "Feeding, Folding and Delivery" section, this report.

Composing Room Equipment

2,421,656. PHOTOGRAPHIC JUSTIFYING APPARATUS reproduces typewritten copy line-by-line in justified form and therefore is especially useful in the preparation of copy for offset lithography. A copy holder successively moves lines of typewriting on a copy sheet to a photographing position and a camera photograph the lines on a light-sensitive medium. Side-by-side cylindrical lenses are provided, each lens having a different degree of curvature and having its curved surface extending in the same direction as the line of copy. These lenses are movable along a path transversely of the optical axis and between the line of copy in photographing position and the camera so that the line of copy may be photographed through any one of them. Thus the lines of copy may be photographed on the medium at a predetermined justified length as a result of shortening or lengthening by the selected lens. A ten-sided cam wheel and lever arrangement brings the required lens into position for each line. Invented by Clarence C. Smith, Flushing, N. Y. Assigned to International Business Machines Corp., New York, N. Y. Application October 27, 1944. 11 claims.

2,421,686. SPACING MECHANISM FOR LINE-UP AND REGISTER TABLES of the type having a straight edge mounted on a rack-supported carriage that is movable across the top of the table by means of gears meshing with the racks. The spacing mechanism comprises a pinion positively geared to one of the racks. Bearings in the carriage support the pinion for rotation about its own axis. Dials graduated in different units and connected to ratchet rings are revoluble in unison around the axis, and the rings are also independently rotatable. The rings are selectively operated by a lever mounted adjacent the ratchet rings. Invented by Floyd L. Dodge, Waltham, Mass. Assigned to Craftsman Line-up Table Corp., Waltham,

Stirring Action

STIRRING ACTION photos, faithfully reproduced by the skill of engravers and printers, give millions of readers on-the-spot accounts of many important events.

And, it's the stirring action of the electric induction furnace that brings to many engravers the flawess, quick, clean-etching metals they need . . . ZOMO ELECTRIC ZINC, A-Z ALLOY.

In this furnace, the heat is generated directly in the bath itself from a magnetic field surrounding the lining. Results: controlled temperatures . . . controlled textures . . . assured uniformity.

Order both these metals from your regular supplier.

ZOMO ELECTRIC ZINC ◆ A-Z ELECTRIC ALLOY

Mass. Application April 17, 1945. 9 claims.

Feeding, Folding and Delivery

2,421,874. DISCHARGE TABLE is adapted for use with printing presses, its base being supported adjacent the discharge end of a press. More particularly, the discharge table is adapted to handle "relatively stiff sheet-like articles" and so attention is called to the company which is assignee. (See below.) An endless conveyer including endless belts receives the printed sheets as they issue from the machine and a rotary conveyer is associated with and disposed between the belts or endless conveyer and table. The rotary conveyer receives and lifts the sheets from the endless conveyer in spaced, fan-shaped relation and places them on their edges and in upright position on the table where they contact a movable stack support. The stack support is progressively shifted away from the rotatable conveyer by pressure applied by each successive sheet as it is stacked. The table may be elevated at its receiving end to permit access to discharge end of machine, and width of table may be varied to accommodate sheets of various sizes. Invented by Frederick Z. Fouse, Lancaster, O. Assigned to Anchor Hocking Glass Corp., Lancaster, O. Application June 28, 1943. 5 claims.

2,422,629. PAPER SHEET HANDLING MECHANISM is especially for a book-stitcher having a supporting table which is movable from a sheet-receiving position to a stitching position. A resiliently displaceable sheet-registering stop carried by the table engages one end of a sheet fed to the table and a clamping device is operatively connected to the stitcher drive to enable it to grip the sheet during movement of the table between its receiving and stitching positions. The registering stop and clamping device are interconnected for enabling simultaneous adjustment of the two to accommodate different sized sheets and for holding the sheet in fixed relation to the stop. Invented by Oskar Muller and Oskar Kleinschmit, Leipzig, Germany. Vested in the Attorney General of the United States. Application June 28, 1939. Patent expires July 9, 1958. 18 claims.

Miscellaneous

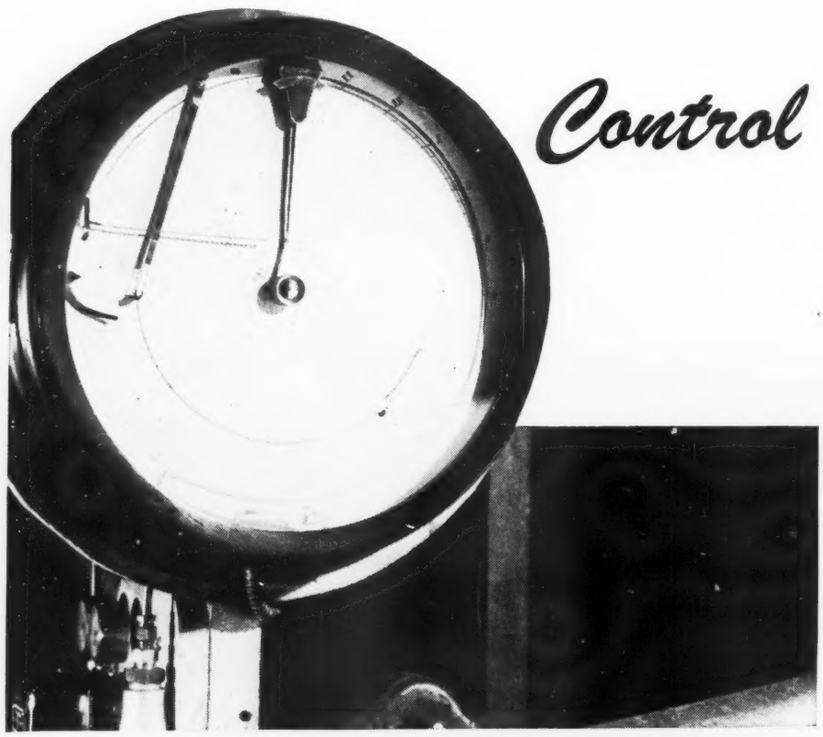
2,421,410. METHOD OF SCREEN PRINTING textiles to avoid juncture marking in the same color of a pattern having regular repeats in which the color extends continuously between adjacent repeats. Two screens for the color are prepared. One screen contains the entire repeat of the color and a transverse end section of the preceding repeat while the second screen contains the entire repeat of the color with the exception of a similar transverse end section. Applying and printing with both screens causes the front section of each repeat to be printed once with each screen, and the end section of each repeat once with the front section and once with the end section of the first screen. Thus the entire repeat is printed twice with the screens while the colors applied are in a condition to blend. Invented by Herbert Bucklin, Sanford, Me. Application October 23, 1945. 8 claims.

Plate Making

During the four weeks covered by this report, no patents have issued for this heading.

Printing Inks and Related Chemicals

2,421,622. PRINTING ASSISTANT, for use in the printing of paper or textiles, consists of a urethane, including also those solid alkyl carbamates which are the reaction products of a monohydric aliphatic alcohol, and a urea or substituted urea. The urethanes, or alkyl carbamates, may be added to the printing color pastes at any point in their compounding. They produce excellent color yields without deterioration of the dyeing or printing composition on standing and they are especially suitable for use with vat-dyes in either paste or powder form. Invented by Roy Herman Keinle and Chester Albert Amick, Bound Brook, N. J. Assigned to American Cyanamid Co., New York, N. Y. Application July 1, 1943. 12 claims.



Control

behind Burgess Quality

How much moisture should a stereotype mat contain? Burgess knows. And Burgess also knows how to maintain just the right amount . . . one reason for the superiority of Burgess Chrome Mats. The moisture content of the sheet must be carefully controlled in order to provide the plasticity and precise shrinkage that the customer desires.

A Laboratory Product BURGESS Chrome MATS

Constant control and testing is typical of the laboratory methods that lie "behind Burgess quality."

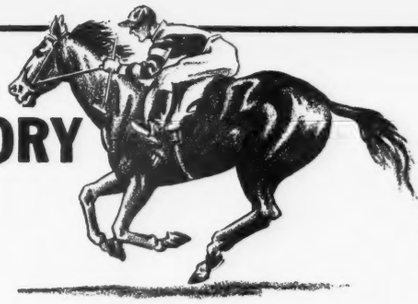
BURGESS CELLULOSE COMPANY

Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats

FREEPORT, ILLINOIS

Pacific Coast Representative RALPH LEBER CO., 426 Polson Bldg., SEATTLE, WASH.

numbers that made HISTORY



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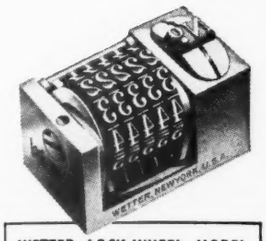
*World Racing Mark for a mile and 7 furlongs, set by Pharawell, a five-year old Gelding at Gulfstream Park, Fla., April 8, 1947.



WETTER LOCK-WHEEL MODEL

numbers that make PROFITS

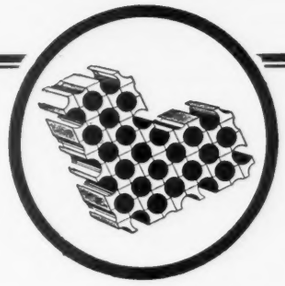
ROMAN
Nº 12356
FACSIMILE IMPRESSION
WETTER LOCK-WHEEL MODEL

Big profits to be made from numbering jobs become even bigger when you use a Wetter —a numbering machine known for its outstanding features. **① Frame of one-piece solid steel; ② Oval-shaped plunger, supported on all sides, prevents wobbling or smudging; ③ Lowest plunger; only 7 points high; ④ Drop-cipher, strongest made; ⑤ Wheel shaft with V-slot for easy oiling; ⑥ Standard machines, even picas in length; ⑦ Figures deeply engraved, hand trimmed, ground to type height.**

New orders must await cleaning up of old ones. Every effort is being made to speed production and to take care of *all* orders. While we eagerly look forward to the day when Wetter can re-establish its reputation for the prompt deliveries to which users were once accustomed, we must ask for your indulgence and patience a while longer.

3035

WETTER NUMBERING MACHINE CO. Atlantic Avenue & Logan Street, Brooklyn 8, N. Y.
SOLD BY ALL DEALERS AND BRANCHES OF A. T. F., INC.



WHEN IT COMES TO *FIRM FOUNDATIONS . . .*

You can't beat

BLATCHFORD BASE

It's pretty tough, these days, to get people to agree upon anything. But when you talk "base" . . . or plate-mounting problems . . . you don't find many serious arguments because *Blatchford Base* has proven beyond any reasonable doubt that it "delivers the goods" on *all* kinds of printing production.

E. W. *Blatchford* COMPANY

CHICAGO
900 WEST 18th STREET

BRANCH OF NATIONAL LEAD COMPANY

NEW YORK
63 PARK ROW

2,421,842. **DRYING OIL FOR USE IN PRINTING INKS**, paints and varnishes, coatings for paper and cloth, grinding oils and the like, is produced by esterifying tall oil with at least one polyhydric alcohol in the presence of an alkaline catalyst, such as zinc oxide, and a siliceous catalyst like bentonite or floridin. The finished product is compatible with linseed, dehydrated castor and other natural drying oils. Invented by Frederick Charles Martin, Guttenberg, N. J. Unassigned. Application December 1, 1944. 23 claims.

2,421,952. **POWDER FOR RAISED PRINTING** is in the form of a copal powdered resin available in snow white and quickly soluble form. This patent deals with the purification of copals. First it is ground until it will pass through a 20 mesh screen and mixed with 1/16 of its weight of a plasticizer so it is spreadable in a thin layer upon a screen. The layer is quickly heated to melt the fusible portions of the copal and the layer wiped to force fused portions through the screen. Foreign matter is raked off and the portion that is passed through the screen is cooled. Invented by Samuel Lipsius, New York, N. Y. Unassigned. Application October 28, 1943. 4 claims.

2,422,359. **NOVEL DIAZONIUM COMPOUNDS** of the benzene series may be incorporated with an azoic dye coupling component into a hydrous alkaline paste which contains a sufficient proportion of a thickening agent, such as gum tragacanth, hydrated starch, or a mixture of the two, to enable a print to be impressed on textile fibres from an engraved printing cylinder. The engraved cloth is placed in an acidified vapor bath, the diazoamino compound is split and the diazo component liberated so that it is immediately reacted with a coupling component present in the cloth and develops the desired color in the cloth. The dyeings made develop clear shades and are fast to light and washing. Invented by Carl W. Maynard, Jr., and Emil G. Wiest, Wilmington, Del. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Original application August 7, 1942. Divided and this application October 29, 1943. 5 claims.

2,422,423. **CHEMICAL TREATMENT OF PAPER** and various paper products which require a dimensionally stable surface, such as was maps, paper employed in offset printing, graph paper, etc. Relatively thick paper cards or sheeting (preferably having a thickness of at least .005 inch) are treated with methylol urea solutions of about 10-50% concentration and the resulting product is heated at about 280-320° F. under a pressure of 200-1000 lbs./sq. in. A cardboard product having a surface impregnated with infusible, insoluble ureaformaldehyde resin is obtained which is especially adapted for use in making business machine cards of the perforated card type because of it dimensional stability. Invented by Hamline M. Kvalnes, Wilmington, Del. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application November 18, 1944. 1 claim.

2,422,572 and 2,422,573. **DRESSING, PRINTING, SIZING**, etc., of fibrous and textile materials is accomplished by a process which comprises impregnating the material with a dispersion in a caustic alkali solution of a water insoluble degraded oxyorgano derivative of cellulose, which has been so far degraded that its solution viscosity is below 1/10 that of an undegraded oxyorgano cellulose derivative which contains the same ratio of the same substituent organic radicals. The degraded derivative is then coagulated in the form of discrete particles on and in the textile material. The cellulose derivative is so far degraded as to be incapable of forming a coherent film which does not disintegrate when a thin layer of the alkaline solution thereof is subjected to coagulating, washing and drying. In 2,422,573, an xanthated cellulose derivative is featured in a process of coating textile material. Invented by Leon Lilienfeld, deceased, late of Vienna, Germany, by Antonie Lilienfeld administratix, Winchester, Mass. Assigned to Lilienfeld Patents, Inc., Boston, Mass. Applications December 22, 1942. In Great Britain September 7, 1937. 39 and 19 claims, respectively.

2,422,637. **A COATING COMPOSITION** comprises a fatty drying oil and as a constituent the resinous condensation product formed by heating phenol together with from 50 to 200% by weight of styrene oxide. The resins are suitable for coating compositions, in bonding plywoods, and they can also be advantageously employed in

Etches FAST and DEEP

You don't have to dig out from under a pile of work if you are using Register-Redibak. This better zinc etches fast and deep . . . with no dirty bottoms.

IMPERIAL TYPE METAL COMPANY

SERVING THE GRAPHIC ARTS INDUSTRY ONLY

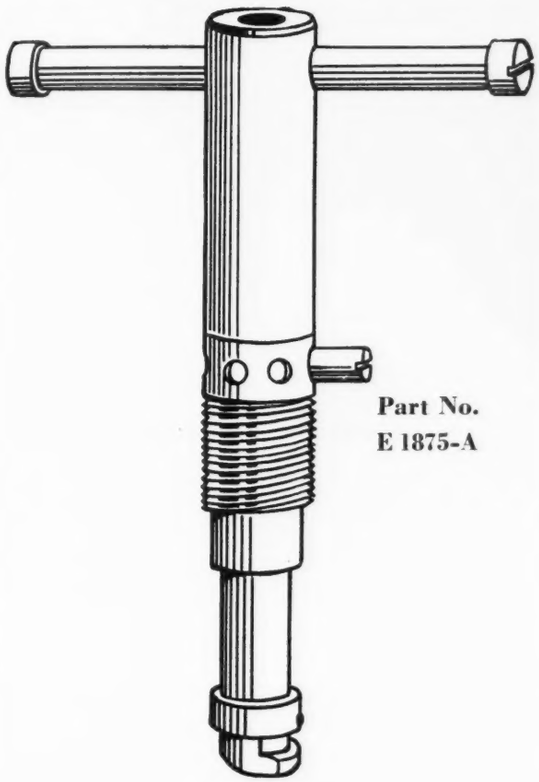
Philadelphia 34 • New York 7 • Chicago 50

Imperial

Another . . .

STAR *improved* PART makes its debut:

***The* Adjustable VISE LOCKING SCREW**



Part No. E 1875-A

- **Tip Replaceable**
- **Adjustable for wear in both TIP and VISE LOCKING STUD**

DETAILED FOLDER EXPLAINS ALL ADVANTAGES WRITE ANY OFFICE BELOW

Wise Machinists avoid trouble. They specify ACE BELTS

PRECISION
TRADE ★ MARK

LINOTYPE PARTS COMPANY

Factory and Main Office:
SOUTH HACKENSACK, N. J.
Branch Offices: 1327 BROADWAY, KANSAS CITY 6, MO.
CHICAGO • MINNEAPOLIS • DENVER

HAMILTON EQUIPMENT

helps him use it profitably

● The time of your compositors is your time . . . you pay for it, by the hour. For you the profitable time is the time they spend at case and working bank, *assembling* type, cuts, rule and spacing materials instead of *hunting* for materials they need.

With Hamilton Cabinets, properly stocked, each of your compositors has before him, or in easy reach, all of the materials he is likely to require for any average job. Thus he is free to devote his entire attention to the job he is trained and paid to do. And thus Hamilton equipment helps your men use *your* time . . . profitably.

Hamilton equipment saves floor space, also, through scientific design that provides maximum working and storage facilities in minimum floor area.

Write for your copy of our new Catalog No. 23, Hamilton Type Cabinets for Job and Newspaper Composing Rooms. Or ask your Hamilton dealer to deliver a copy to you.

HAMILTON
MANUFACTURING COMPANY
TWO RIVERS, WISCONSIN

the manufacture of printing inks. Invented by Charles A. Thomas, Dayton, O. Assigned to Monsanto Chemical Co., St. Louis, Mo. Application October 14, 1943. 4 claims.

Printing Presses and Equipment

2,422,328. ADHESIVE COMPOSITION is said to find particular use in the manufacture of printers' rollers, in book binding, and in the lamination of fibrous materials. It has all the advantages of proteinaceous compositions plasticized with glycerine, but without the use of glycerine. Adhesive consists of a vegetable or animal adhesive and a glucoside of glucose and ethyl alcohol containing from two to eight carbon atoms. Invented by Harland H. Young, Chicago, Ill. Assigned to Industrial Patents Corporation, Chicago, Ill. Application July 16, 1942. 7 claims.

2,423,028. ELECTRIC CONTROLLER is for multi-unit machines such as those used for printing newspapers in which the printing units and folders are arranged in alignment and with three or four of the printing units between the folders. The control makes it possible to change the groupings of the units, to add to them, and to arrange for their operation with facility. One driving motor is associated with one unit for driving it at slow speeds and at running speeds. Other motors drive the remaining units at running speeds only. A pilot motor is connected to the control shaft of a speed controller for one driving motor. A master panel for the first speed controller acts, through the connected pilot motor, to operate all of the controllers. The master panel first actuates the first driving motor to operate the machine at slow speed, then all the driving motors for high speed, the pilot motor being reversely operable to decelerate the machine to an intermediate speed, and then again actuate the first driving motor to operate the machine at slow speed. Invented by Albert J. Horton, White Plains, and William C. Wieking, Woodhaven, N. Y. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application August 7, 1944. 10 claims.

TELETYPESETTER saves time for "TIME"

The weekly newsmagazine

Week after week, "TIME" carries on the world's fastest magazine printing operation—over 1,500,000 copies in 24 hours, printed simultaneously in Philadelphia, Chicago and Los Angeles.

To learn how Teletypesetter makes this possible, see "A Letter from the Publisher" on page 21 of the June 16th issue of "TIME."

Teletypesetter can save time, money and errors for you too!

TELETYPESETTER CORPORATION
1400 Wrightwood Ave., Chicago 14, Ill.

TELETYPESETTER
REG. U. S. PAT. OFFICE

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D. C.

How To Repair Cracks and Holes In Concrete Floors

By W. F. SCHAPHORST*
**Mechanical Engineer, Newark, N. J.*

EVERY once in a while the problem of repairing concrete floors comes up. The question is asked, "What can be done with a bad crack that leaks water? How can a repair be made that will be both substantial and waterproof?" Unless there is considerable vibration on the floor, it is a simple matter to waterproof the floor by first cutting out the crack into a V-shaped groove to a depth of at least 2 in. Sweep water over the newly cut concrete removing all loose particles of cement and sand. Prepare a stiff and waterproof mortar by mixing together 1 part portland cement and 2 parts clean, sharp sand, and wet down with a solution of 1 part liquid waterproofing and 8 parts of water. Immediately before filling the grooves with this new mortar, brush over the clean, damp surfaces a slush or bonding coat made by stirring into a solution of 1 part liquid waterproofing and 3 parts water enough portland cement to form a thick, creamy cold water paint. While this cement wash is still damp, apply the new mortar and trowel it to a smooth finish.

In a similar way, the ruts and holes in a concrete floor can be cut out to a depth of 1½ in. below the finished floor and new patches applied, which will adhere to the underlying concrete and which will be waterproof, hard and dustproof. Patches of this type harden over night so that the repairs can be made on Saturday afternoon and Sunday.

Satisfaction for particular people

OK

Printers are careful craftsmen. They take pride in turning out fine work. And they know what is needed to do it. So—isn't it indicative of the consistently-high quality of Johnson Inks that they have been serving this painstaking trade for 143 years?

CHARLES ENEU Johnson AND COMPANY

GOOD INKS SINCE 1804

10th and Lombard Sts., Philadelphia, Pa.

NEW YORK • CHICAGO • BOSTON • ST. LOUIS • CLEVELAND • DETROIT
BALTIMORE • KANSAS CITY • PITTSBURGH • ATLANTA • DALLAS

---

3 products for better STEREO PRODUCTION

Eastern products will help you get sharper, better looking papers out faster. To meet today's schedules, mat molding must be quick, sure and reliable.

Eastern TRU-MOLD Cork Molding Blanket with just the right amount of Bakelite to insure perfect density. Guarantees maximum "come-back" for sharp, clean impressions, durability and minimum edge cracking.

Tru-Molds can be had in either "Medium," "Medium-Hard" or "Hard" density in standard sizes and 21 x 25 x $\frac{3}{16}$".

"FLECTO" Gummed Backing Felt assures clean cut molds. Sticks flat to the mat regardless of scorching heat. Does not crack, slip or crystallize. "Flecto" is uniform, soft, pliable. It does not peel or separate in layers, but conforms to and shrinks with the mat.

Available in sheets or strips in the following sizes:

Gauges .021, .025, .030 (Green) sheeted 18" x 24".

Gauge .035 (Red) sheeted 18"x24".

Gauges .040, .045 (Green) sheeted 18"x22".

Gauges .050, .060 (Gray) sheeted 18"x20".

Cut into strips 9" or 18" long and ⅛" to 1" wide at no extra charge.

DEEPMOLD CREEPER — New — Superior. The most advanced development in molding creepers. Deepmold gives sharp, clean halftone reproduction, does not cut or spread column rules—molds extra deep bolsters.

Sizes	.062 Prices	.090 Prices
20x24x"	$3.50 ea.	$4.75 ea.
21x25x"	3.65 ea.	5.00 ea.
22x26x"	3.80 ea.	5.25 ea

EASTERN Newspaper Supply
9603 Northern Boulevard
Corona, New York

OTHER SUPPLIES

Autoplate Belts	Cut Mounting Tacks	Direct Pressure Molletons
Router Bits	Hand Mitts	Mallets
Router Belts	Molding Boards	Planer Blocks
Circular Saws	Direct Pressure Felts	Woven Wool Molding Felts
Jig Saw Blades	Wool Dryers	
Flate Tak	Lino Chairs	
Scorchers	Matrix Shears	

Raw Paper Base Tinted with Dye Solutions

DYE solutions instead of pigments were used by the Germans for tinting raw paper base and coloring barium sulphate coatings used in the manufacture of photographic paper according to a report on the German photographic industry now on sale by the Office of Technical Services, Department of Commerce.

The dye solutions were employed at the Felix Schoeller paper mill at Burg Gretesch, near Osnabruck, one of five plants visited by a team of investigators from the British Intelligence Objectives Sub-Committee.

Barium sulphate was obtained by several of the photographic paper manufacturers from the I. G. Baryta Manufacturing Plant at Leverkusen. The production of the chemical, also known as "baryta" ran parallel to the production of "Lithopone", a substitute for white lead in paints and represented a means of utilizing by-products of two chemical processes.

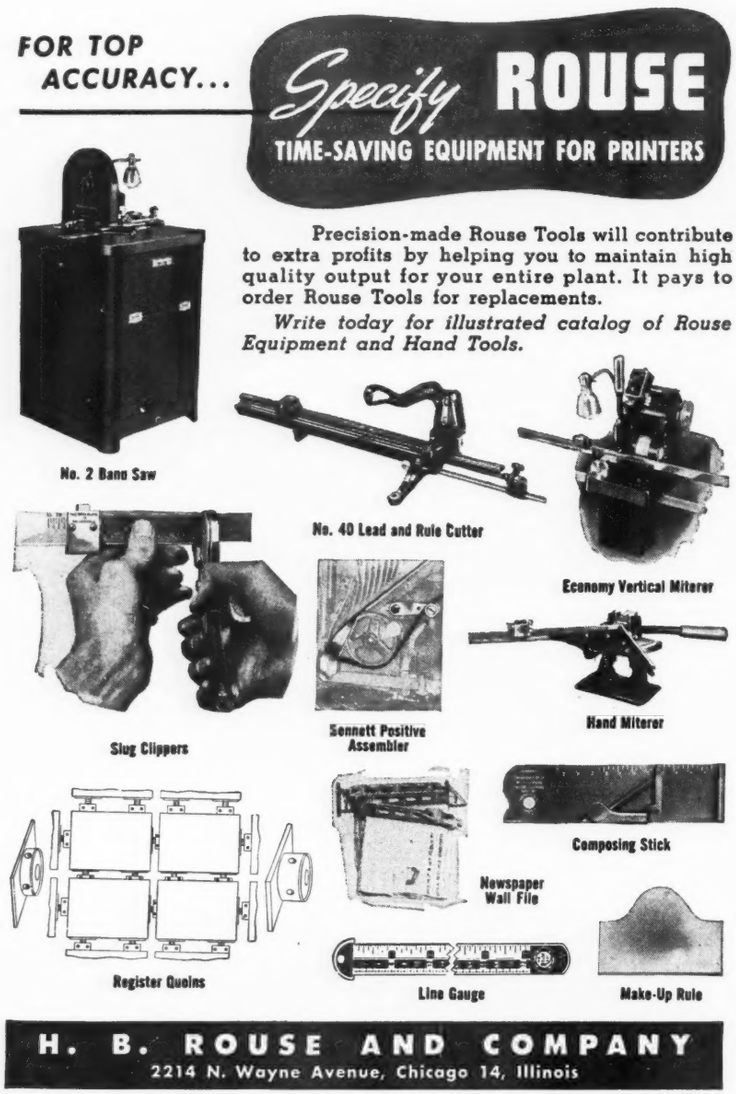
I. G. Leverkusen had its own photographic paper factory—the Agfa Department—originally the Bayer Company merged with I. G. in 1925. At the Agfa Department the investigators found a rapid printing unit for imprinting trade marks on back of the paper. The unit employed an aniline dye solution with quick drying solvents which permitted a printing speed of 60 metres per minute at room temperature although the distance from the printing roller to the re-reeling spindle was only 5 metres. The ink was applied directly to the paper by rubber type. Solvent vapors were removed to some extent by a perforated lateral suction tube located over the top ink spreading roller.

At the Leonard Werke, located on a main highway at the outskirts of Hamburg, the investigators found a novel emulsion making system. The factory, which employed 250 people before the war, utilized portable 150-litre jacketed kettles in which to process the emulsion. The kettles, approximately 28 inches high and 20 inches in diameter, were mounted on small three-wheeled bogies. A jacket around the internal lining was provided with a pipe union which could be quickly connected with either water or steam pipe outlets.

There were three locations for mixing with propellor type pulley driven paddles, all mixing and melting operations being done in the portable kettles. The factory used about 50 kettles. Although portable equipment would not be suitable for large scale production, the investigators believe the system was quite adequate for the comparatively small output of the factory.

The report contains drawings of paper coating machines and drying air recirculation units, and plans and layouts of several factories. Photographs are included showing coating machines, mixing units, emulsion making units, and kettles.

Orders for the report, PB-75852 (*German photographic industry*; 87 pages, photos, drawings, tables; microfilm, $2; photostat $7) should be addressed to the Office of Technical Services, Department of Commerce, Washington 25, D. C., and should be accompanied by check or money order, payable to the Treasurer of the United States.


FOR TOP ACCURACY...
Specify ROUSE
TIME-SAVING EQUIPMENT FOR PRINTERS
Precision-made Rouse Tools will contribute to extra profits by helping you to maintain high quality output for your entire plant. It pays to order Rouse Tools for replacements.
Write today for illustrated catalog of Rouse Equipment and Hand Tools.
No. 2 Band Saw
No. 40 Lead and Rule Cutter
Economy Vertical Miterer
Slug Clippers
Sennett Positive Assembler
Hand Miterer
Composing Stick
Newspaper Wall File
Register Quoins
Line Gauge
Make-Up Rule
H. B. ROUSE AND COMPANY
2214 N. Wayne Avenue, Chicago 14, Illinois

New Plant for Reynolds

Plans for a new plant at Celina, O., were recently announced by Richard H. Grant, jr., President of The Reynolds & Reynolds Co., printers and lithographers, Dayton, O. Work on the $250,000 plant is expected to begin shortly with a possibility the building will be ready for occupancy next spring. Plans indicate the new one-story plant will provide 35,000 sq. ft. of floor space and will afford straight-line production.

The Reynolds & Reynolds Company, established in 1866, manufactures and distributes standard accounting systems, business forms, advertising literature and allied products throughout the United States.

The Celina factory, it is stated, will provide needed floor space to enable the handling of an increased volume of business at the Dayton plant. A factory at Los Angeles will continue to operate as a finishing plant for west coast operations.

Our Neck is Out

every time you get a

METAL ANALYSIS REPORT

What that analysis shows depends on how the type metal is performing. That's why, in an Imperialized shop, our neck is sticking out every time the report comes in. If it shows metal unbalance, Imperial is concerned. In the same way, as soon as the first pound of Imperial Metal enters **your** shop, Imperial assumes the unconditional responsibility of your service metal because the Imperial Plus Plan assures tight control over the condition of that metal.

By careful control and attention to each plants' running record of periodic analysis, Imperial laboratory technicians can anticipate a trend toward unbalance and correct for it—preventing trouble before it happens.

Let Imperial stick their neck out in your shop—write today for details.

IMPERIAL TYPE METAL CO.

Serving the Graphic Arts Industry Only

Philadelphia 34 **New York 7** **Chicago 50**

Imperial

DIRECTOMAT

Speeds Production...Improves Reproduction

A few
Directomat advantages:

★ **DIRECTOMAT molding produces sharper, more uniform mats... makes possible the higher quality reproduction demanded by advertisers and agencies.**

★ **The DIRECTOMAT eliminates stretch of mats...reduces chance of mat buckle... can produce dry mats with the same shrinkage you now get.**

★ **With the DIRECTOMAT all color work and fine half-tone work can be molded and completely dried...without shrinkage...in a single operation.**

★ **The DIRECTOMAT equipped for double-sided operation has the capacity of two mat rollers... requires the space of only one.**

To help meet the demands of advertisers for better reproduction, more and more leading dailies in the United States and abroad are installing DIRECTOMATS. They are discovering through actual experience that the DIRECTOMAT not only produces sharper, more uniform mats, but has many other advantages as well.

Nearly 150 DIRECTOMATS are already bringing all of these advantages to leading newspaper and commercial plants. If you are interested in these advantages for your plant—interested in improving reproduction today...providing for R.O.P. color work now or later—write to Lake Erie for complete facts on the DIRECTOMAT.

LAKE ERIE ENGINEERING CORPORATION
568 Woodward Ave., Buffalo 17, N. Y.
Offices in Principal Cities and Foreign Countries

LAKE ERIE
ENGINEERING CORP.
BUFFALO, N.Y. U.S.A.

● Leading manufacturer of hydraulic presses—all sizes and types—stereotyping..plastic molding..processing..rubber vulcanizing..metal working..forging..metal extrusion ..special purpose.

Co-operation

(Continued from Page 39)

out costly procedures, such as poorly prepared copy, unnecessary requests for proofs, author's revisions and many other items with which you have had experience. In turn, we were told our shortcomings. We did not like many things told us, the same as the advertising department at first regarded our approach with a fishy eye. But gradually we have been able to work out many of our problems to mutual advantage. Not all, of course, but many which have kept our increasing cost in better shape than if this procedure had not been developed.

We have been able to get our largest accounts to prepare layouts carefully. Missing cuts are indicated and the time we can expect them. All subject matter copy is typewritten. We furnish one set of proofs. There are no revises unless by special request. The proofs are carefully watched by the advertising department for author's corrections or an unnecessary amount of them. The same holds true for copy from smaller advertisers and copy prepared by our advertising department staff men.

Another important part in our relations with the advertising department and the advertiser is the educational service the composing room renders. Whenever an advertiser secures a new ad-writer, or artist, our advertising director informs the composing room head, and arranges a date to bring this person to our office for a conference. We know many young men and women take these positions immediately after completing a course in advertising or art work at some school. We have found a large percentage of these people lack a great deal of experience and knowledge. So we in the composing room try to help them. We ask questions in order to find out what they know about newspaper composition makeup, etc. With this information, we acquaint them with our type specimen book and general style. We show them how to use type the correct way. To select the proper faces or families; how to identify type sizes and copy fitting. We tell them nothing is more wasteful in advertising than to make their advertising hard to read. We discourage the use of handlettering.

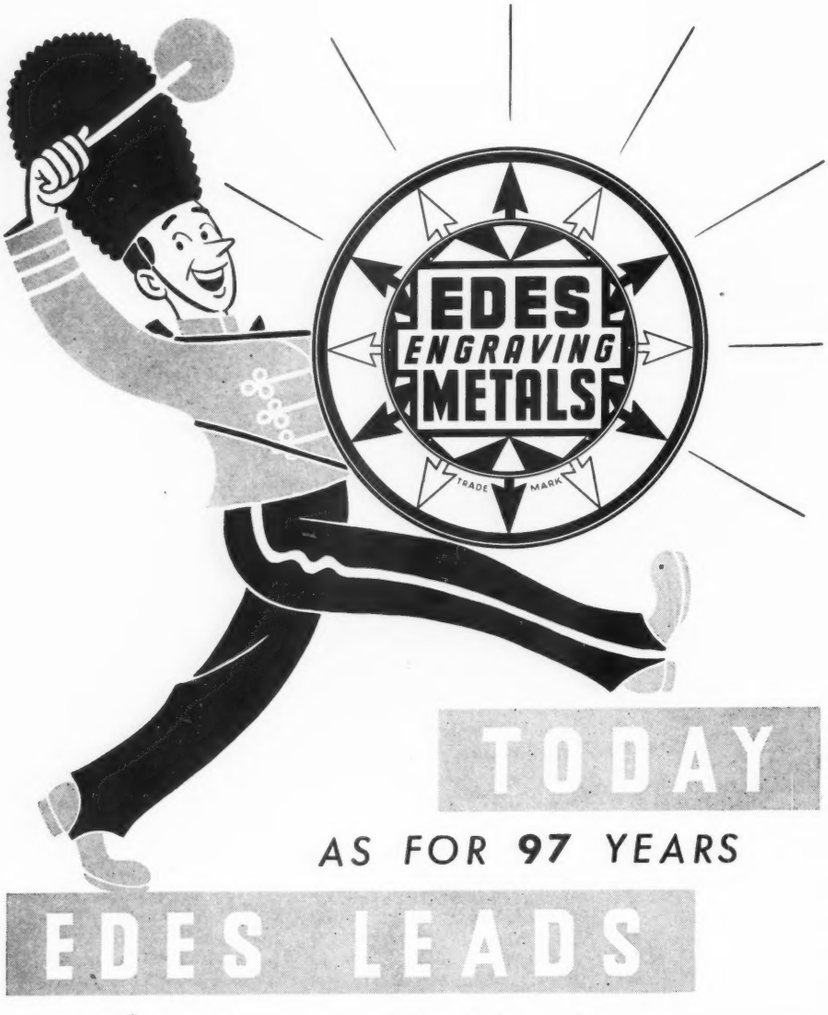
In the composing room, we have done and are doing everything possible to turn out a high type of advertisement. The layout of our mechanical department has been revamped. All old type faces have been discarded. All we ask of our advertising department and advertisers is good clean layouts and copy carefully typed, then leave the rest to us. Fortunately, we have a composing room staff of very capable men who take pride in their work. This is naturally reflected in the advertising set in our shop.

Today, our advertising department consistently tells the advertiser, particularly the new one, what a fine job may be expected if he will cooperate with us. Actually, the advertising department takes pride in our work. Certainly we make mistakes and get occasional hell for it.

Now as to the advertiser—how does he take it? For the most part like a kitten lapping up milk. Of course, we have a few out of many, that are never satisfied. They too, frequently break down and tell our advertising department what a nice job has been done on their advertising.

Again, through long periods of education, we have been able to prove to them that carefully prepared copy, submitted sufficiently in advance brings the desired traffic into their store with the desired profits. Naturally, the item has to be right and the store approach and promotion of equally favorable type.

Trying to sum up our experience in as few words as possible. First get your house in order—that is, the relationship between departments, with their attendant problems. Make it a give and take proposition, if at all possible. Point out to your advertising manager and members of his staff how much more you can accomplish with good clean workmanship which every ad alley man feels he possesses. Then do your part in turning out top notch advertisements and he and the advertisers will sing your praises.



EDES ENGRAVING METALS
Regular Zinc
Hard Matrix Zinc
Triplemetal
Copper
Brass
Gravure Sheets

You can't beat Edes when it comes to Photo-Engraving Metals — but you *can* beat the drums for them, as so many others are doing in shops all across the land. Make a note: For ALL Engraving Metal Needs — *Standardize on Edes!*

THE EDES MANUFACTURING COMPANY
PLYMOUTH, MASSACHUSETTS

For faster, easier Cut Mounting *use*

BOOTH'S ZINK CUT CEMENT

Cut mounting is faster, easier. The risk of out-of-position cuts is eliminated with this special one - purpose adhesive. Booth's Zink Cut Cement comes to you in a tough, ready tube dispenser. When it is applied according to directions it sets up quickly, insures a firm bond between cut and any kind of base.

Get Booth's Zink Cut Cement—discover for yourself the fastest cut mounting method.

PRICES: In the United States: 75c per tube, $6.00 a doz. tubes, $5.00 a doz. in gross lots.

BOOTH'S BLACK RUBBER ROLLS
Favored by Operators and Machinists

Because, Booth's Black Rubber Rolls are long wearing, extra responsive, provide maximum cam tread friction, and maintain accurate diameter throughout their length—smart machinists and operators depend on them.

Try them. You'll see why they're popular. You'll come back for more.

PRICES: $1.45 per pair, $7.75 per dozen.

E. A. BOOTH RUBBER CO.

MAHONING BANK BUILDING
YOUNGSTOWN, OHIO

LONG LIFE

Out of long years of continuing research—proved in the pressroom—has come a finer, longer-lasting VULCAN Press Blanket.

VULCAN 1947 Press Blankets are products of skilled American labor. They assure you of longer press runs without blanket changes and free from impression resettings. They are improved in firmness. There is greater strength in the coating compound, which means increased resistance to wear and surface abrasions. Proper resilience and uniformity of thickness are other outstanding characteristics.

Insist on Press Blankets by VULCAN, maker of the world's largest line of cylinder packings. There is a VULCAN packing combination for every cylinder press—from the oldest decker type to the most modern, dynamically balanced steel cylinder with roller bearings.

For a better-looking paper, use Vulcan Press Blankets.

VULCAN
PROOFING COMPANY

FIRST AVENUE & 58th STREET • BROOKLYN 20, NEW YORK

Pacific Coast Representative:	*Canadian Representative:*
THE CALIFORNIA INK CO., Inc.	SEARS LIMITED, TORONTO

RICHARDS *leads the Parade*

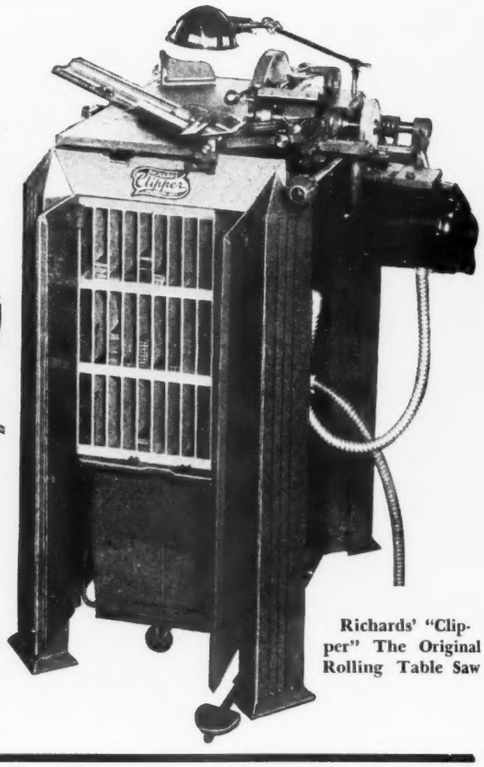
With Original Creations

SAWS
ROUTERS
MORTISERS

With Exclusive Patented Features

***MULTIFORM RADIAL ROUTER** Heavy Duty Full Page Capacity. Also built in ½ page Junior Model.*

De Luxe "Do-More" Saw-Trim-Router-Planer



Richards' "Clipper" The Original Rolling Table Saw

Write for descriptive literature on all machines.

J. A. RICHARDS CO.
Dept. 55 Kalamazoo, Mich.

EXECUTIVE ¶s

In June, announcement was made that Joseph E. McMullen has been appointed assistant production manager of the Milwaukee *Journal*. Mr. McMullen will assist John P. Keating, Vice President and Production Manager. Julian J. Eberle and Joseph Goll will remain in their present capacities as mechanical engineer and mechanical superintendent respectively. Leroy Schultz has been appointed pressroom foreman and Arthur Funk is now assistant pressroom foreman.

Rollo Lewis, Sales Manager, New Products Div., Beveridge Paper Co., Indianapolis, announces effective August 1, the appointment of Wm. W. Pezdirtz as Sales Representative in Mid-Western territory. He will make his home in Des Moines, Iowa. Pezdirtz is a son of the late Joseph Pezdirtz, Production Manager of the Des Moines *Register* and *Tribune*.

John E. Allen, editor of *The Linotype News* for 25 years (from its inception in 1922) died at his home in Garden City, N. Y., on July 12, from a heart attack. Mr. Allen, who was 58, had specialized in newspaper typography for many years and designed hundreds of newspapers in the United States, Canada, Latin-America, and in Europe. He was widely respected as a consultant in newspaper makeup and lectured on that subject at scores of newspaper conventions and schools of journalism. He was a prolific writer, contributing hundreds of feature stories and articles to magazines and trade papers through the years. He wrote three books on newspaper makeup and typography, each published by Harper and Brothers. His latest, *Newspaper Designing*, is now on press and scheduled for publication in September. The two earlier books have been standard texts in leading newspaper offices and schools of journalism.

Hon. Augustus E. Giegengack, Public Printer of the United States, receiving the President's Certificate of Merit from General C. B. Ferenbagh, Commanding General of the District of Columbia, at a recent dinner given by Printing Industry of America, for "outstanding fidelity and meritorious conduct in aid of the war effort against the common enemies of the United States and its allies in World War II". In addition to the certificate, Richard B. Keech, Secretary of the Medal for Merit Board, said the certificate was awarded "in recognition of your outstanding services as Public Printer in carrying out the exacting duties of your office in such a manner as to meet every demand of the Government for essential printing during the recent war period, which proved to be an invaluable contribution to the war effort of the United States".

TIE-UPS SAVE YOU TIME AND MONEY

ADJUSTABLE TIE-UPS, Permanent

Make-up and tie-up your pages in one operation with the Riehlock Adjustable Permanent Tie-ups. No string—no waste motion. Made of spring steel, ¼-in. high to fit channeled reglet.

Tie-up is operated by moderate hand pressure at corners, closing in on page and holding firmly by self-contained clips.

Designed so that it may be left around page of type at all times.

This feature permits locking pages in chase for press run without removing tie-up and reglet. This is a distinct advantage to the printer who may reprint page forms repeatedly.

To open Tie-up spread at the corner.

It's adjustable fectures enable it to cover a wide range of sizes, i.e.: a 6″ x 8″ tie-up will expand to 11″ x 14″.

PRICE LIST FOR PAGE TIE-UPS

Adjustable to following dimensions given in picas. Available in sets of 8 of any one size.

F.O.B. Cleveland, Ohio

Minimum Capacity (picas)	Maximum Capacity (picas)	Price per set of 8
12 x 18	18 x 30	7.84
18 x 30	30 x 48	7.84
30 x 48	48 x 84	9.60
36 x 30	65 x 48	8.40
36 x 48	65 x 84	10.40
60 x 84	100 x 132	16.16

REGLET, Channeled
F.O.B. Cleveland, Ohio

(For use only with the Riehlock Permanent Adjustable Tie-ups)
12 pt.-22½″ Strip ..... .09

HOW TIE-UPS PAY FOR THEMSELVES IN ONLY A FEW USES:

1. Any job that remains standing, after the press run, has to be re-tied—(with permanent tie-ups this operation is eliminated.)
2. The average page of type is tied and untied at least seven times, before the job is completed.
   a. Tied once when first made-up (in making up page inside permanent tie-up this operation is eliminated.)
   b. Un-tied for 1st correction (with permanent tie-up on page no un-tying necessary, just spread at corner.)
   c. Re-tied after 1st correction (no re-tying necessary with permanent tie-ups, just press in at corner.)
   d. Un-tied for final correction (eliminated in using permanent tie-ups.)
   e. Tie-up again after final correction (eliminated in using permanent tie-ups.)
   f. Un-tied for press lock-up (unnecessary with permanent tie-up, they remain on page at all times. Channeled Reglets allow a square lock-up and tend to lessen press work-ups.)
   g. Tie-up after press run (operation unnecessary when using permanent tie-up.)

"UNTIE YOUR PRINTERS"

RIEHL GALLEY LOCK COMPANY, INC.
1312 ONTARIO STREET, CLEVELAND 13, OHIO

"UNTIE YOUR PRINTERS"

Did You Ever Count the Hours on a Jogging Job?

Long tedious hours of winding, bouncing, hammering paper stock—an essential part of the job—but costly and time consuming.

Actual cost records show that Jog-A-Way paper joggers do many of these jobs in ¼th to ⅙th the time consumed by hand jogging. Onion skin, snapouts and carbon interleaved forms are a cinch.

We have a limited number of Jog-A-Ways in stock for immediate shipment. Write today for descriptive literature and price information.

Model JY-4

Operator gathers directly into Jog-A-Way and it vibrates sheets into nice smooth stacks. Jogging operation is eliminated. Handles sheets to 17 x 22. Hopper is 4 inches deep.

Model JY-1

For all purpose jogging. Operator holds large lift of stock on Jog-A-Way and it rapidly vibrates sheets into nice smooth stacks. Handles sheets to 17 x 22.

JOG-A-WAY

THE M. L. ABRAMS COMPANY

Printing Machinery and Supplies

1639 SUPERIOR AVENUE **CLEVELAND 14, OHIO**

The Royle Router

- A large table mounted on a rigidly constructed column.
- Convenient alignment and tightening of driving belts.
- Running parts designed to reduce vibration.
- Sufficient speed at cutter edge to route fine or rough out without reducing speed.
- Precisely fulcrumed elevating mechanism assures immediate reaction to pressure on the foot pedal.
- Changing cutter heads a matter of seconds.
- Speed and balance are built into Royle Routers.

JOHN ROYLE & SONS

Established 1855

10 Essex Street Paterson 3, N. J.

What Can

SYNTRON

"VIBRATING"

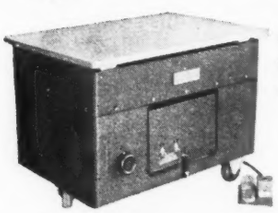
PAPER JOGGERS

Do For You?

They'll speed up jogging—do it 3 to 4 times faster than by hand.

Their 3600 vibrations per minute—controllable, both for type of stock and load on vibrating deck—eliminate pounding, and other methods of "coaxing" alignment.

They'll fit into your shop layout—you have a variety of types and styles from which to choose.



All of which add up to the important fact—that they'll save you MONEY and TIME.

Write for illustrated folder

SYNTRON CO.
577 Lexington
Homer City, Pa.

Paul F. Cox, 79, inventor and developer of printing presses, died July 6 at his home in Los Angeles, Calif. He had been connected with The Goss Printing Press Co. for many years, and had retired eight years ago. The work of Paul Cox and his brother, Joseph, is well known. Both brothers had credited to them many inventions and patents. In November, 1906, both brothers applied for patents on a semi-rotary flat bed web perfecting press which was especially designed to print direct from cuts and type.

In 1907, they established the Jackson Printing Press Co., Jackson, Mich., to build this press.

The first semi-rotary press was completed in January, 1908, and was sold to L'Italia Press, San Francisco, Calif.

Early in 1920 the Cox brothers introduced the Goss Cox-O-Type press, which was designed to meet the needs of publishers of the smaller daily and the country weekly newspapers. It was built with a view to simplification. The first Cox-O-Type was installed during February, 1920, in the plant of the Woodstock (Ill.) *Daily Sentinel*, where it is still in operation. The Goss Printing Press Co. has built over 300 of these presses which are now in operation all over the world.

Paul F. Cox beside a miniature working model of the Goss Cox-O-Type Press. This miniature press was on display at the Chicago Century of Progress in 1933 and fascinated visitors by actually printing and folding a miniature newspaper.

ATF News Notes—Henry Krumm, ATF salesman, was Indianapolis' first June bridegroom this year. Krumm, who works out of the ATF Cincinnati branch, and his bride, Miss Mary Ellen Murphy of Indianapolis, were the first in line when the marriage license bureau opened for business June 1 . . . ATF announced the addition of nine men to its sales staff. The men and the ATF branches they are assigned to are: John B. Newsom, Boston; John H. Johnson, New York, N. Y.; John H. Farr, Buffalo; Fred T. Peters, Cleveland; S. M. Lawrence, Cincinnati; Joseph W. Vogt, St. Louis; Alvin L. Roberts, Kansas City; Bernard L. Hansel, San Francisco; and, William F. Farmer, Los Angeles. . . . James West as a member of the Antlers Rifle and Pistol Club, Flushing, N. Y., shared honors of the winning No. 1 club to cop the William Randolph Hearst Citizen Marksmanship Trophy for 1947. Sharpshooter West and his team had a score of 1521 out of a possible 1600, the highest ever achieved in the New York *Journal-American's* matches. West is a non-offset spray equipment specialist with ATF's New York, N. Y. branch. . . . Robert B. Huddleston, advertising manager of American Type Founders, spoke on printing plant layout at a meeting of the Eighth District Craftsmen's Club, held in St. Louis on June 6. The talk was illustrated by charts and layout aids pre-

Eloquent testimonial

to the worth of the

CUSHMAN *Offset* MOTOR

is the continuing demand for it by Linotype and Intertype owners who have used it these many years.

INSTRUCTION and PARTS BOOK available to those without one.

Cushman Motor Division

LINOTYPE PARTS COMPANY
INCORPORATED
SOUTH HACKENSACK, N. J.

CROMWELL TYMPAN

HAS TAKEN THE *Guesswork* OUT OF *Presswork* FOR US!

LEONARD C. SCHELL, assistant production manager for Photo Engravers & Electrotypers, Ltd., Toronto, says: "Costly make-ready mishaps due to tympan failure are a thing of the past since we started using CROMWELL TYMPAN."

Pressroom foreman, George Christie agrees: "CROMWELL TYMPAN never lets us down, no matter how tough the job or how long the run."

The real worth of CROMWELL Extra Special Prepared TYMPAN is told on your time sheet. Long runs and tough jobs go through without those expensive press-stops for spotting, patching and changing drawsheets so often necessary with inferior tympan. CROMWELL's hard uniform surface, high tensile strength and absolute resistance to oil, moisture and atmospheric changes can help you put an end to makeready troubles, too! *Write for FREE working sample today, giving size and make of press.*

The CROMWELL PAPER CO.
4801 S. WHIPPLE ST., CHICAGO 32, ILL.
CROMWELL *Extra Special Prepared* TYMPAN

ASK YOUR DISTRIBUTOR FOR CROMWELL PRINTERS HAND SOAP

The only soap designed especially for the graphic arts. Remove printers ink like magic—without rubbing or scrubbing! Kind to the hands . . . slightly alkaline—non-irritating. 1½ lb. net weight in can. Order from your Cromwell distributor today—or write us.

These **TORNADO COMPANION CLEANERS** *keep maintenance* **COSTS DOWN!**

because . . .

. . . this powerful **TORNADO** Floor Machine does a host of jobs — scrubs, waxes, polishes, scours, sands, steel wools, and similar floor conditioning work. It is quiet, easy to operate, responsive to every touch and movement.

because the improved, re-designed **TORNADO** Industrial Vacuum Cleaner picks up dirt, dust, steel filings; removes and salvages small scrap from benches and floors; and has countless everyday uses.

As companion cleaners, the vacuum cleaner follows the floor machine in one continuous operation, removing water, moist scraps and leavings, drying the surface and leaving it safe and sanitary.

WRITE FOR LITERATURE OR FREE DEMONSTRATION

Check the advantages of having both *Tornado* Floor Machine and *Tornado* Vacuum Cleaner to keep your maintenance costs down.

BREUER ELECTRIC MFG. CO.
5114 RAVENSWOOD AVE., CHICAGO 40, ILL.

BEVERIDGE
to Double Production of Dependable
DRY MATS

New Machinery Is Being Installed—
Watch for Announcement of Double Production
Available for Shipment

New Products Division
THE BEVERIDGE PAPER COMPANY
INDIANAPOLIS 4, INDIANA

ECONOMY LIFTERS

As used in the printing industry for:

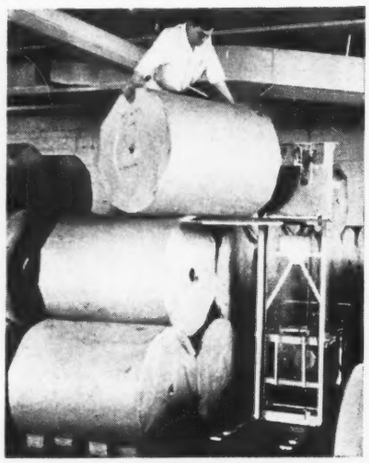
ROLL HANDLING
(any size or weight)

SKID HANDLING

BOXES, FLAT PAPER

BALES, WASTE PAPER

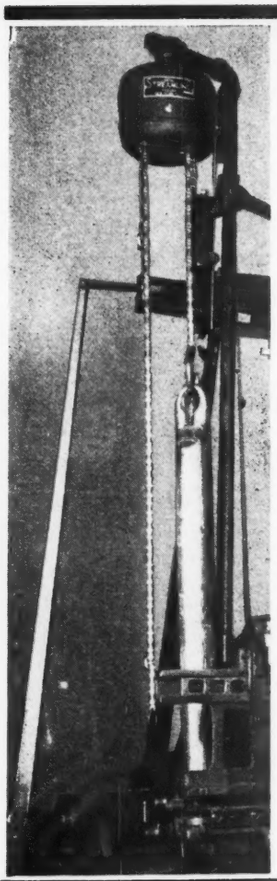
CARTONS



750 Lb. ROLL LIFTER

Other lifters available with Capacities 500 to 5000 pounds. Any platform lift and size. Hand and electric powered hoist units.

ECONOMY ENGINEERING CO.
2691 W. Van Buren St. . . . Chicago 12, Illinois



Streamline Feeders

Eliminate Your Metal Pot Troubles

We believe Streamline is the most efficient and practical metal feeder available for type-casting machines. **It feeds 10½ ounces per cycle.** Will not overfeed and eliminates hollow slugs.
It does away with slipping and pot-flooding, at the same time feeding at a faster rate of speed. There are models made for the Monotype, Ludlow and Elrod machines. Make your inquiries direct or through dealers. Write today for further information and delivery dates.

Streamline Metal Feeder Company
MAIN OFFICE
94 Taylor Street
Danbury, Conn.
also
106 Walker Street
New York, New York

pared by the ATF engineering department. . . . American Type Founders, Inc., has announced that since V-J Day it has manufactured and shipped more than 1000 printing presses of the sheet-fed offset and letterpress varieties. . . . Edward G. Williams, president of ATF Inc., and ATF Sales Corp., was guest of honor at a recent dinner given by the staff of ATF Inc., the parent company. The occasion was completion of the most successful business year in the history of the manufacturing and sales companies Williams heads. . . . Francis L. Harris, salesman in the Detroit office of American Type Founders, has been awarded the Army Air Medal with three oak leaf clusters "for meritorious service as a radio operator on a transport plane in the Mediterranean area." Harris served in the army from May 1942 to September 1945.

Harold Grayston of Salt Lake City (Utah) has succeeded Tod Hunter as Linotype production engineer for Utah, southern Idaho and eastern Nevada. Mr. Grayston was publisher of the *Emery County News* of Castle Dale, Utah, and a partner in the *Sugarhouse Bulletin*, suburban weekly of Salt Lake City. Mr. Grayston is making his headquarters in Salt Lake City.

Stuart E. Arnett, Sales Manager, Printing Machinery Div., of Electric Boat Co., has announced the appointment of Malcolm O. Brewer as eastern district manager. Mr. Brewer was formerly vice president and eastern manager for Vandercook and Sons, Inc. He is a member of the Board of Governors of

Malcolm O. Brewer appointed eastern district manager of Printing Machinery Div., Electric Boat Co.

the New York Club of Printing House Craftsmen and a member of the New York Employing Printers Association, Young Printing Executives Club and the Sales Executives Club.

Ralph C. Persons, General Manager of the Geo. H. Morrill Div., Sun Chemical Corp., has announced the appointment of Anthony H. Miller as Eastern Sales Representative. Immediately after completing college, Mr. Miller spent eight years in the newspaper ink business, and the four most recent years on the engineering and sales staff of a newspaper printing press manufacturer. Mr. Miller's headquarters will be at 100 Sixth Ave., New York, N. Y.

Louis E. Pleninger, vice president in charge of foreign sales for American Type Founders, Elizabeth, N. J., has gone to Europe for a several-weeks' tour of ATF agencies on the continent and a study of post-war conditions there in the Graphic Arts industry.

Lyndon E. Rebe, Vice President of Nolan Corporation, announces appointment of Robert C. Sapp as sales representative for the Mid-West territory. He has had 12 years previous experience in Graphic Arts field.

Harry Hodgson, service representative for the Harris-Seybold Co. for more than 35 years, passed away June 28 at his home in Malpeque, Prince Edward Island, Can. Mr. Hodgson was well known and had many friends in the Graphic Arts throughout the United States and Canada. He spent most of his time in the company's Eastern District until his retirement in 1945.

Good Space Buyers Are NOT Figure Bound

Of course, in placing national ads, they want to know the circulation reports from various sales fields. But they also want to see the papers under discussion . . . Where fine production competes with top circulation, they often vote for the better printed paper . . . Clean, clear, production, such as is associated with Certified Mats, generally means a more discriminating readership and certainly a better presentation of the message.

For dependable stereotyping, rely on Certified Mats

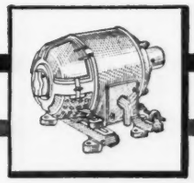
Certified DRY MATS

CERTIFIED DRY MAT CORPORATION, 9 Rockefeller Plaza, Dept. M, New York 20, N. Y.

THE
PRODUCT OF NEARLY A HALF
CENTURY OF SPECIALIZATION

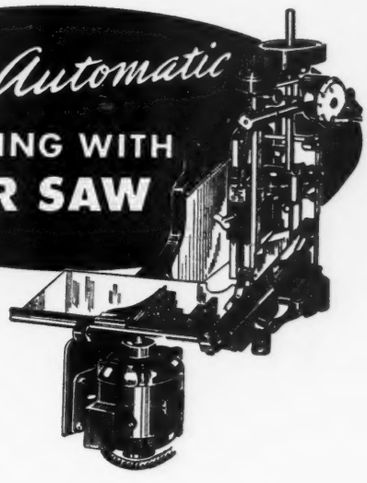
KIMBLE

CUSTOM-BUILT MOTORS



KIMBLE ELECTRIC
Division of Miehle Printing Press & Mfg. Co
2005 WEST HASTINGS STREET
CHICAGO 8, ILLINOIS
DISTRIBUTED BY: AMERICAN
TYPE FOUNDERS

100% Automatic
SLUG SAWING WITH
MOHR SAW



SAVE—
TIME
METAL
MONEY

The Mohr Saw cuts slugs to any desired length as they are ejected from the linecasting machine. Saving is 100% automatic and the Mohr Measure Control feature provides instant and accurate selection of slug length. Simplifies and speeds up odd-measure composition. Write for full information today.

MOHR LINO-SAW COMPANY
126 N. Union Avenue Chicago 6, Ill.

OHIO KNIVES

O.K.

BLACKARROW
PAPER TRIMMING KNIVES

● They give 25 to 40% longer service. Give better cutting at lower cost—proven under severe test in America's largest paper mills and printing plants. Made of a new alloy to withstand heavier cutting and still hold a keen edge for long runs. Ground with a slight concave and taper on the face for clearance—smooth cutting.

MAIL TODAY

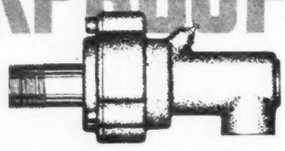
THE OHIO KNIFE CO.
CINCINNATI 23, OHIO

Gentlemen: Please send without obligation specific data on knives I have checked.
☐ Trimmer ☐ Revolving Cutter ☐ Slitter

COMPANY_____
NAME_____
ADDRESS_____

The **OHIO KNIFE Co.**
CINCINNATI 23, OHIO, U. S. A.

PROVED LEAKPROOF



Typical Deublin Rotating Water Joints have turned over 150 million revolutions without leakage or signs of wear! Designed by printing equipment engineers, long life Deublin Joints are economical and simple to maintain. Used for cooling revolving cylinders or drums. Get Bulletin D-10.

DEUBLIN COMPANY
NORTHBROOK ILLINOIS

Photography and Platemaking for Photolithography

by I. H. Sayre

This book is an instruction book and an encyclopedia, both for the beginner and the experienced offset-lith platemaker. Revised edition. Illustrated. New section on color process platemaking techniques included.

Price $6.50 per copy plus 25c for postage and handling. May be ordered through PRINTING EQUIPMENT ENGINEER, 1276 West Third St., Cleveland 13, Ohio. Because of narrow handling margin, please send cash with order.

Lt. Col. Bruce Buttles, Assistant Military Attache, American Embassy, Moscow, and a former assistant city editor of the Pittsburgh *Post-Gazette*, has been appointed professor and head of the Department of Printing of Carnegie Institute of Technology, effective September 1, according to an announcement by Dr. Webster N. Jones, director of the College of Engineering and Science. Stanley Hlasta, assistant professor in the Department of Printing has been serving as acting head. Lt. Col. Buttles was graduated from the University of California in 1930 and received his Master of Science degree from Columbia University in 1936. From 1938 to 1940 he was a student in the graduate program in printing at Carnegie Tech. Starting his journalistic career as associate editor of the *Western Grower and Shipper*, of Los Angeles in 1930, he became successively manager of the Southern California News Bureau of the *Christian Science Monitor*; staff correspondent for the same newspaper; staff writer for the Pittsburgh *Post-Gazette*, and assistant city editor of that paper in 1940. Editor Buttles exchanged his eyeshade for an officer's cap in the same year when he entered the Army Air Corps. In 1943 he became assistant to the Chief of Staff, Ninth Air Support Command, and later was made a member of the War Department General Staff. He was appointed Chief of the Propaganda Branch in 1945, and the following year assumed his present duties as Assistant Military Attache in Moscow. Lt. Col. Buttles has been the recipient of the Legion of Merit and the Bronze Star. He has been a prolific writer. Born in Lewiston, Mich., he is the son of Mrs. Lillian V. Buttles of 1269 Van Ness Ave., Fresno, Calif. He is a member of the International Association of Printing House Craftsmen; of the University Club of Pittsburgh, and the Army-Navy Country Club, Washington, D. C. Also Honorary Vice President, American Institute of Graphic Arts.

Carnegie Dept. of Printing's new Head, Lt. Col. Bruce Buttles, assumes duties on September 1.

The appointment of H. W. Suter to the position of director of sales, and Herbert W. Suter, jr., as general sales manager, and Harold E. Wright, assistant general sales manager, recently were embodied in an announcement made by Reuben B. Robertson, president of The Champion Paper and Fibre Co. Appointments were effective July 1.

Herbert W. Suter, jr., appointed general sales manager of Champion Paper and Fibre Co.

Frank Parker has been appointed mechanical advisor of the Newhouse Newspapers, it was announced recently by S. I. Newhouse. Mr. Parker was former pressroom superintendent of the Staten Island (N.Y.) *Advance*.

Frank Parker, recently appointed mechanical advisor of the Newhouse Newspapers.

Lewis W. Thomas has rejoined the Sleight Metallic Ink Co. as manager of its Washington office. Mr. Thomas had been loaned to the Government during the war period to act as Assistant Chief, Machinery Section, Printing & Publication Div., of the CPA, and has been engaged in that capacity until his return.

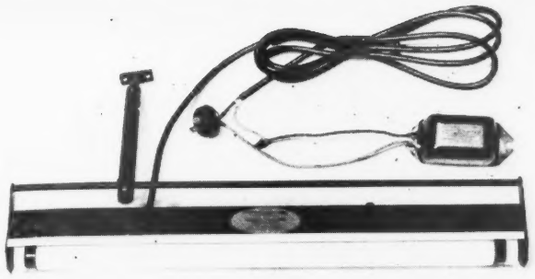
Mr. Thomas was one of the organizers of the Washington Club of Printing House Craftsmen. He served as its first secretary, and for many years as a member of its Board of Governors. Mr. Thomas was also one of the organizers of

SYNTHOX ROLLERS *Ideal*

Best in the long run—proved in service!

Synthox rollers distribute moisture-set and linseed base inks smoothly and efficiently; special formulas for special purposes. Popular on large rotaries as well as on smaller, high-speed presses. Easily used and easily cleaned.

IDEAL ROLLER & MANUFACTURING CO. Chicago 8, Illinois Long Island City 1, N.Y.



BETTER light produces MORE type

PROVED in many composition and newspaper plants. Once Superior Fluorescent units are tried on one machine, they are soon installed on every machine in the shop. Operators testify that they conserve eyesight, eliminate eye strain. They save sight, increase production.

Superior Fluorescent units are light, but sturdy. They put light where it is needed, on the copy, keyboard and pie stacker, do not interfere with operator on the next machine. Portable, easily moved and detached for use as a trouble lamp, they're simple to install—no new holes needed. Tube good for maximum 6000 light hours.

IMMEDIATE DELIVERY

Descriptive folder on request. Satisfaction Guaranteed.
Price $20.00. D.C. $1.00 extra (state current when ordering).

— AGENTS WANTED —

SUPERIOR FIXTURE COMPANY

121 W. 67th TERRACE **KANSAS CITY 5, MO.**

Pays it's Way EVERY DAY—

CHALLENGE PAPER DRILL

(STYLE E ILLUSTRATED)

SIMPLE TO OPERATE •
SPEEDY •
EASILY ADJUSTED •
AUTOMATIC TRIP GAGE •

Available in several models to meet the requirements of small, medium or large shops. With a Challenge you can drill holes of various sizes and with attachments you can do all kinds of slotting, slitting and cornering. •

Challenge Paper Drills have automatic Trip Gage which allows operator to keep both hands on stock while drilling. Motor operated drill head is moved through paper by hand-lever, foot-lever or electro-hydraulic mechanism.

WRITE FOR COMPLETE INFORMATION

585

THE CHALLENGE MACHINERY CO.
"Over Fifty Years in the Service of the Graphic Arts"
MAIN OFFICE AND FACTORY: GRAND HAVEN, MICH.

HERRICK Inks

for all purposes

- newsprint
- letterpress
- offset

Uniform density . . . high color strength . . . exceptional coverage—feature Herrick Inks due to finest ingredients and exact control in manufacturing. Ask HERRICK to study your pressroom conditions and create a special formula ink, "tailor-made" to your requirements for letterpress or offset.

WILLIAM C. HERRICK INK CO., INC.

Main Office and Plant: EAST RUTHERFORD, NEW JERSEY

Accurate . . . Fast . . . Safe!

The **NEW NOLAN** *"Chief"*
SAW-TRIMMER

This new saw-trimmer gives you speedy, accurate saw-trimming . . . safely . . . at lower cost. Write for price, complete information.

NOLAN CORPORATION
1331 East Dominick St.
ROME, NEW YORK
Manufacturers of Finest Quality Printing Equipment

FAITHFUL MIDDLETONES
STAYBACK
SOLID BLACKS

The skipper knows— Wood Dry Mats give all tonal gradations for perfect reproduction.
SAMPLES SENT FREE TO YOUR SPECIFICATIONS

DEEP MOLD
CLEAN HIGHLIGHTS
PLASTICITY

WOOD FLONG CORPORATION
HOOSICK FALLS • NEW YORK
New York City Office:
551 FIFTH AVENUE, NEW YORK 17, N. Y.

IMPORTANT
to You -

ON and after September 1, 1947, the price of Lithographic Technical Foundation Shop Manuals will be 50 cents, Skilled Craft Texts $1.00, with a discount of 40% to members, schools, libraries and book stores.

There is a catalog of all Foundation publications, (including those in print and in production) in your front office or available on request.

Lithographic Technical Foundation
INCORPORATED
131 East 39th Street — RESEARCH
New York 16, N. Y. — EDUCATIONAL

How To Handle Labor Grievances

by Dr. John A. Lapp

Grievances between employers and employees are endless in variety. Careless treatment of them can result in serious disputes later.

Dr. Lapp discusses a practical treatment of the problem based on actual experience and the review of hundreds of cases.

Titles of the five part manual are:

Bound in buckram cloth, 294 pages, 5½ by 8 in.

Price $4.00
cash with order.

PRINTING EQUIPMENT *Engineer*
1276 West Third St.
Cleveland 13, Ohio

- BACKGROUND AND HISTORY OF GRIEVANCE PROCEDURES
- GRIEVANCES AND HOW TO DEAL WITH THEM
- OUTLINE OF GRIEVANCE PROCEDURES
- GRIEVANCE PROCEDURES IN SELECTED INDUSTRIES
- PROBLEMS OF GRIEVANCE PROCEDURES

Speedy PAD-PRESS
MORE PROFITS!
And More Satisfied Customers, Due To BETTER Padding!!
Fast, easily operated and compact, the Speedy Pad-Press will make your bindery a more profitable one.
$17.40 F.O.B. MIAMI
SPEEDY MACHINERY CO.
1477 S.W. 3rd St. - Miami 35, Fla

WISE Buys

MODEL 8 LINOTYPE, Serial No. 41,000, 3 Mag. 3 molds, AC Motor, Electric Pot, reconditioned—guaranteed. Immediate delivery.

5 full, 10 split 90-chan. Intertype Mag.

7½-2-824 IONIC W/B, over 10,000 new sort mats.

5½-32 No. 4 W/B No. 2, over 2100 new sort mats.

24-9V VOGUE BOLD WITH OBLIQUE, font, new mats, 72-chan.

30-2477 VOGUE BOLD, font, 550 new mats, 72-chan.

48-2512 VOGUE BOLD COND. Caps and lc, for model F or G side mag. New.

Over 100 fonts, slightly used mats. Ask for mat list.

William J. Wise
Printing Machinery & Supplies
32 Blvd. of Allies
PITTSBURGH 22, PA.

the National Association of Printing House Craftsmen and has served as delegate to the International Convention on many occasions. He is a member of the Executive Board of the Washington Printing Pressmen's Union No. 1, IPP&AU.

Announcement has been made of the appointment of Roy H. Sandvik as Manager of the New York office for Vandercook & Sons, Inc. Associated with Mr. Sandvik will be Gustav Zeese, representative for the Vandercook organization in the New England States and the New York area. The company has inaugurated a service plan whereby users of Vandercook equipment throughout the United States may subscribe to a periodic service by factory trained servicemen.

Roy H. Sandvik, Manager of Vandercook & Sons, Inc., New York office.

Gustav Zeese, Representative of Vandercook & Sons, Inc., in New York area.

Ortho Stripping Film Booklet

A BOOKLET in which is described Kodak's Kodaline Ortho Stripping Film has been published by Eastman Kodak Co. This film can be used for coarse-screen halftone and line work. In the booklet are shown the results obtainable with a wide variety of illustrations on newsprint. It is pointed out in the booklet that the effective speed of Kodaline Ortho Stripping Film is such that under the pressure of fast make-up changes from edition to edition, this special purpose Kodak Film helps the engraving department to meet its deadlines. Copies of the booklet may be secured upon request to *Printing Equipment engineer.*

CLASSIFIED ADS ALL CLASSIFICATIONS

$.75 per line 1-9/16" wide. Minimum ad 5 lines

CASH WITH ORDER

Count approximately 25 characters per line.

CLOSING DATE—15th of Month preceeding Date of Issue. We will forward all mail addressed to Box Numbers. When answering Box Numbered ads, address as follows: Box Number . . . PRINTING EQUIPMENT *Engineer*, 1276 West 3rd Street, Cleveland 13, Ohio.

HELP WANTED

Man 25-35 for sales engineering for paper manufacturer. Good personality, technical education, pressroom experience essential. Some traveling necessary. Salary commensurate with qualifications. Send complete details and Photo to Box 285 *Printing Equipment Engineer.*

FOR SALE

One 24-cycle Hoe Pancoast Press,. Complete with two 100 H.P. press drives, two single folders and rubber rollers. Immediate delivery. Can be seen in operation. Write Box 287 *Printing Equipment Engineer.*

FOR SALE

Three paper roll elevators, each three floors high. Immediate delivery. Can be seen in operation. Write Box 288 *Printing Equipment Engineer.*

FOR SALE

No. 2 Kelly Press, in perfect condition, running every day. Can be released at once. Box 286 *Printing Equipment Engineer.*

Invitation

Mechanical and production executives are invited to send tips to the editor that will be of help to other executives in the Graphic Arts industry. Readers of *Printing Equipment Engineer* appreciate these suggestions.

SAFETY·RELIABILITY·ECONOMY

CLINE
PRESS DRIVES
and
CONTROL
Reels, Tensions
and Pasters...

CLINE SYSTEM

CLINE ELEC. MFG. CO.
Chicago, 211 West Wacker Drive
New York, 220 East 42nd Street
San Francisco, 1st Nat'l Bank Bldg.

BAUM FOLDERS
RUSSELL ERNEST BAUM
615 Chestnut Street Philadelphia, Pennsylvania

Reid Milking Machine
The new sensational Reid Milking Machine does not use continous vacuum force where the teat is, and rubber inflations and pulsator are eliminated. You can see the actual milking action of each teat, daily thorough wash time at Anton Lissy Farm, Mazon, Ill. is less than 10 minutes.
WILLIAM REID CO. 2271 CLYBOURN CHICAGO, ILL.

★ **STAR CUT CEMENT** ★
Since 1936 — *For Mounting* — Since 1936
CUTS...STEREOTYPES...ELECTROTYPES
65c per tube-$5.25 per doz. $5.00 per doz. in two doz. lots, $4.00 per doz. in gross lots.
★ STAR CEMENT COMPANY ★
45 Malone Avenue, BELLEVILLE 9, N. J.

HOW TO ADJUST
WORK-UPS
By Wm. H. Lichter and Geo. F. Smalley
This 24-page booklet analyzes causes of work-ups and gives proper procedure for locking up forms.
PRICE $1.00 CASH WITH ORDER
PRINTING EQUIPMENT *Engineer*
1276 West Third Street, Cleveland 13, Ohio

ENGINEERING FOR THE PRINTER & PUBLISHER
New Buildings . . . Modernization
Alterations . . . Surveys
ROBERT W. DICKERSON
508 ERIE BLDG., CLEVELAND 15, OHIO
Division of Maier & Walsh and Dickerson
ARCHITECT-ENGINEERS

TECHNICAL BOOKS

The books listed below may be ordered through Printing Equipment Engineer, 1276 W. Third St., Cleveland 13, Ohio. Because of narrow handling margin, please send remittance with order.

GENERAL

MATERIALS HANDLING—By Harry E. Stocker. This book is of vital interest to mechanical and production executives in printing and publishing plants. While not written specifically as a treatise on materials handling in the printing plant, yet a great deal of its text will be of value in the handling of materials in the plant and out-going shipments from the plant. Bound in light buckram, 309 pages, many illustrations, size 6 in. by 9¼ in. Price $5.35

READING AS A VISUAL TASK—By Matthew Luckiesh, D.Sc. and Frank Moss, E.E. Most important research work to have been published in many years. For printers, designers, publishers, typographers and layout men. Readability of type, type faces, length of line, leading between lines, paper, ink, printing method and lighting are some of the factors involved in ease of reading. Size 5½ in. by 8⅜ in., 428 pages, bound in maroon gold stamped cloth. Price $5.

STANDARD BOOK ON ESTIMATING for PRINTERS—By Fred W. Hoch. Revised 1941 edition. This book is a primer for students and a reference for printers and estimators. Every printing plant should have a copy. Author explains all operations in commercial printing plant and shows production time allowance for each in hours and decimal hours. Size, 6 in. by 9¼ in., 268 pages, $3.75 plus 25c postage and handling.

HOW TO HANDLE COLLECTIVE BARGAINING NEGOTIATIONS—Report based on a survey conducted by the National Foremen's Institute. Points out errors and fallacies which have tripped management in the past and how to avoid these mistakes in the future. Multon binder. 42 sheets, 9½ by 11½ in., $5.00.

HOW TO HANDLE LABOR GRIEVANCES—By Dr. John A. Lapp. Dr. Lapp discusses a practical treatment in the five part manual. Titles of the parts are: Background and History of Grievance Procedures; Grievances and How to Deal With Them; Grievance Procedures in Selected Industries; and Problems of Grievance Procedures. Bound in buckram cloth, 294 pages, 5½ by 8 in., $4.00.

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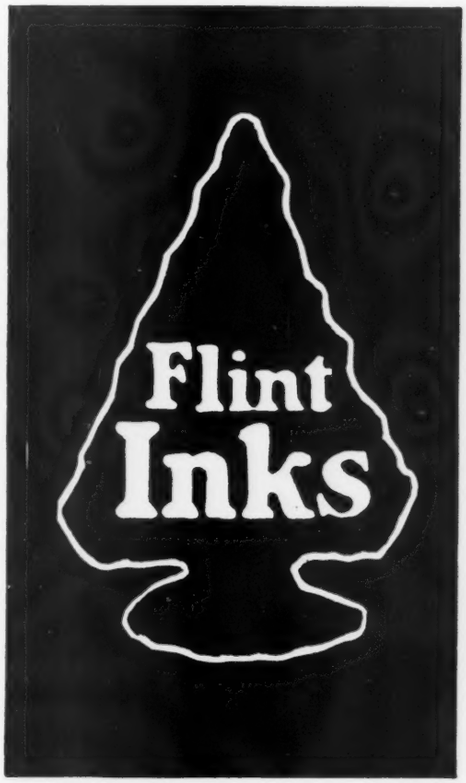

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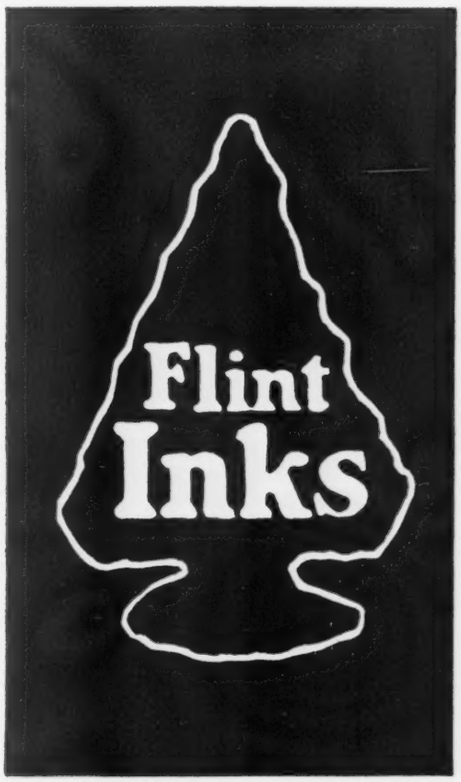

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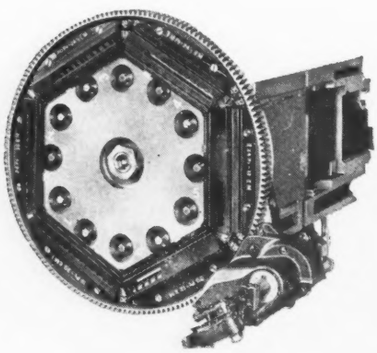

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